HCD-ZX70DVD

SERVICE MANUAL

Ver 1.4 2004.09

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Chinese Model

HCD-ZX70DVD is the Amplifier, DVD/CD player, Tape Deck and Tuner section in MHC-ZX70DVD.

This stereo system is equipped with the Dolby B-type noise reduction system*.
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This system incorporates Dolby* Digital and Pro Logic Surround.
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DVD Section	Model Name Using Similar Mechanism	NEW
	DVD Mechanism Type	CDM53J-DVBU1
	Base Unit Name	DVBU1
	Optical Pick-up Name	KHM-220AAA
TAPE Section	Model Name Using Similar Mechanism	HCD-ZX30AV
	Tape Transport Mechanism Type	TCM-230AWR12

SPECIFICATIONS

Amplifier section

AUDIO POWER SPECIFICATIONS: (U.S.A. model only)

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:
with 8 ohm loads both channels driven, from 120-10,000 Hz; rates 90 watts per channel minimum RMS power, with no more than 10% total harmonic distortion from 250 milliwatts to rated output.

Total harmonics distortion
Less than 0.07%
(8 ohms at 1 kHz, 50 W)

Center Speaker:
Continuous RMS power output
40 watts
(8 ohms at 1 kHz, 10% THD)

Rear Speaker:
Continuous RMS power output
40 + 40 watts
(8 ohms at 1 kHz, 10% THD)

Canadian model:

Front Speaker:
Continuous RMS power output
100 + 100 watts
(8 ohms at 1 kHz, 10% THD)
Total harmonics distortion
Less than 0.07%
(8 ohms at 1 kHz, 50 W)

Center Speaker:
Continuous RMS power output
40 watts
(8 ohms at 1 kHz, 10% THD)

Rear Speaker:
Continuous RMS power output
40 + 40 watts
(8 ohms at 1 kHz, 10% THD)

European model:

Front Speaker:
DIN power output (rated) 80 + 80 watts
(8 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)
100 + 100 watts
(8 ohms at 1 kHz, 10% THD)
Music power output (reference)
170 + 170 watts
(8 ohms at 1 kHz, 10% THD)

Center Speaker:
DIN power output (rated) 30 watts
(8 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)
40 watts
(8 ohms at 1 kHz, 10% THD)
Music power output (reference)
60 watts
(8 ohms at 1 kHz, 10% THD)

– Continued on next page –

COMPACT DISC DECK RECEIVER

9-929-264-15
2004I05-1
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Sony Corporation
Audio Group
Published by Sony Engineering Corporation

SONY®

Rear Speaker:

DIN power output (rated) 30 + 30 watts
(8 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)
40 + 40 watts
(8 ohms at 1 kHz,
10% THD)
Music power output (reference)
60 + 60 watts
(8 ohms at 1 kHz,
10% THD)

Other models:

The following measured at AC 120/220/240 V, 50/60 Hz

Front Speaker:

DIN power output (rated) 95 + 95 watts
(8 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)
120 + 120 watts
(8 ohms at 1 kHz,
10% THD)

Center Speaker:

DIN power output (rated) 30 watts
(8 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)
40 watts
(8 ohms at 1 kHz,
10% THD)

Rear Speaker:

DIN power output (rated) 30 + 30 watts
(8 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)
40 + 40 watts
(8 ohms at 1 kHz,
10% THD)

Inputs

VIDEO (AUDIO) IN:	voltage 250 mV,
(phono jacks)	impedance 47 kilohms
MD IN:	voltage 450 mV,
(phono jacks)	impedance 47 kilohms
MIC:	sensitivity 1 mV,
(mini jack)	impedance 10 kilohms
(Asian model only)	

Outputs

MD OUT:	voltage 250 mV
(phono jacks)	impedance 1 kilohms
VIDEO OUT:	max. output level
(phono jack)	1Vp-p, unbalanced, Sync negative, load impedance 75 ohms
S-VIDEO OUT:	Y: 1Vp-p, unbalanced,
(4-pin/mini-DIN jack)	Sync negative, C: 0.286Vp-p, load impedance 75 ohms
PHONES:	accepts headphones of
(stereo mini jack)	8 ohms or more
FRONT SPEAKER:	accepts impedance of 8 to 16 ohms
REAR SPEAKER:	accepts impedance of 8 to 16 ohms
CENTER SPEAKER:	accepts impedance of 8 to 16 ohms
WOOFER OUT:	Voltage 1 V, impedance 1 kilohms

DVD player section

Laser	Semiconductor laser
Frequency response	DVD (PCM 48 kHz): 2 Hz – 22 kHz = (±1 dB)
	CD: 2Hz – 20 kHz = (±1 dB)
Signal-to-noise ratio	More than 90 dB
Dynamic range	More than 90 dB
Video color system format	NTSC, PAL

DIGITAL OUT OPTICAL
(Square optical connector jack, rear panel)

Wavelength	660 nm
Output Level	–18 dBm

Tape player section

Recording system	4-track 2-channel stereo
Frequency response	40 – 13,000 Hz (±3 dB),
(DOLBY NR OFF)	using Sony TYPE I cassette
	40 – 14,000 Hz (±3 dB), using Sony TYPE II cassette

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range

North American model:	87.5 – 108.0 MHz (100 kHz step)
Other models:	87.5 – 108.0 MHz (50 kHz step)
Antenna	FM antenna
Antenna terminals	75 ohm unbalanced
Intermediate frequency	10.7 MHz

AM tuner section

Tuning range

North American model:	530 – 1,710 kHz (with the interval set at 10 kHz)
	531 – 1,710 kHz (with the interval set at 9 kHz)
European and Middle Eastern models:	
	531 – 1,602 kHz (with the interval set at 9 kHz)
Other models:	531 – 1,602 kHz (with the interval set at 9 kHz)
	530 – 1,710 kHz (with the interval set at 10 kHz)
Antenna	AM loop antenna
Antenna terminals	External antenna terminal
Intermediate frequency	450 kHz

General

Power requirements

North American model:	120 V AC, 60 Hz
European model:	230 V AC, 50/60 Hz
Australian model:	230 – 240 V AC, 50/60 Hz
Mexican model:	120 V AC, 60 Hz
Thai and Chinese models:	220 V AC, 50/60 Hz
Other models:	120 V, 220 V or 230 – 240 V AC, 50/60 Hz Adjustable with voltage selector

Power consumption

North American model:	220 watts
European model:	220 watts
Other models:	230 watts

Dimensions (w/h/d) Approx. 250 x 375 x 395 mm

Mass

North American model:	Approx. 13.2 kg
European model:	Approx. 13.0 kg
Other models:	Approx. 13.5 kg

Design and specifications are subject to change without notice.

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与安全有关的零部件须知

在原理图上用阴影及⚠标记来识别的零部件在安全操作上是具有关键性的。这些零部件要用本手册中所示的部件号对应的索尼零部件进行更换。

在安全操作上具有关键性的电路调整与索尼公司出版的维修手册完全一致。在更换关键零部件时或怀疑动作失常时，请进行这些调整操作。

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage.
Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes.). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers’ instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

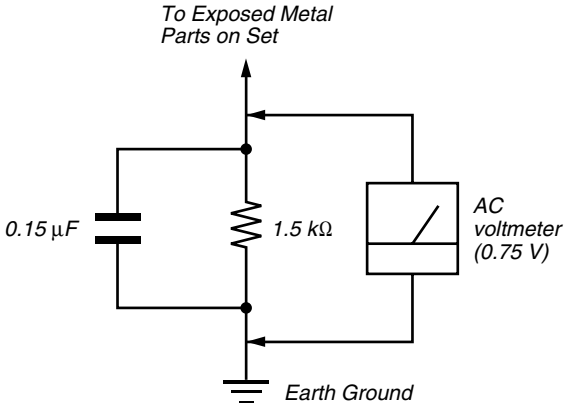


Fig. A. Using an AC voltmeter to check AC leakage.

Notes on chip component replacement

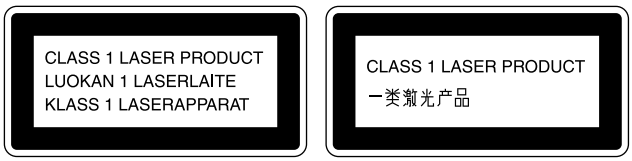
- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

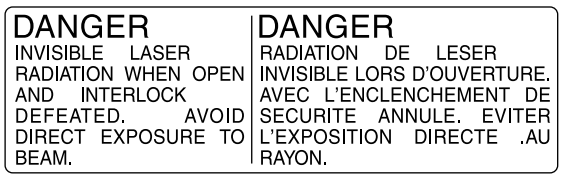
This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.



Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

The following caution label is located inside the unit.

CAUTION : INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
ADVARSEL : USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSAETTELSE FOR STRÅLING.
VORSICHT : UNSICHTBARE LASERSTRAHLUNG. WENN ABDECKUNG GEÖFFNET UND SICHEREITSVERRIEGELUNG ÜBERBRÜCKT. NICHT DEM STRAHL AUSSETZEN.
VARO! : AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
VARNING : OSYNLING LASERSTRÅLING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.
ADVERSEL : USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRYTES. UNNGÅ EKSPONERING FOR STRÅLEN.
VIGYAZAT! : A BURKOLAT NYITÁSAKOR LÁTHATATLAN LÉZERSUGÁRVESZÉLY! KERÜLJE A BESUGÁRZÁST!


DANGER
INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCK DEFEATED. AVOID DIRECT EXPOSURE TO BEAM.
DANGER
RADIATION DE LESER INVISIBLE LORS D'OUVERTURE. AVEC L'ENCLENCHEMENT DE SECURITE ANNULE. EVITER L'EXPOSITION DIRECTE .AU RAYON.

SECTION 1
SERVICING NOTES

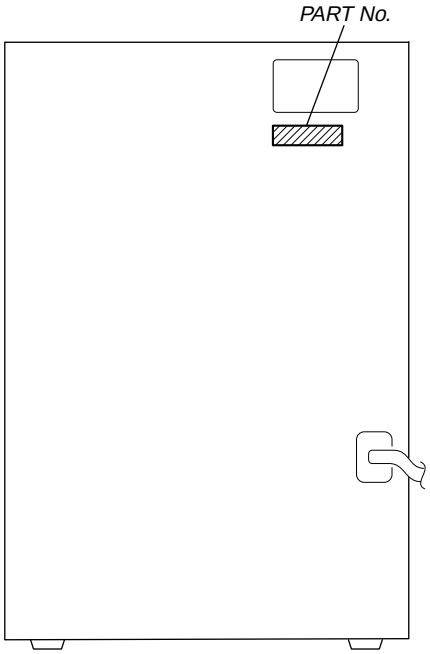
NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

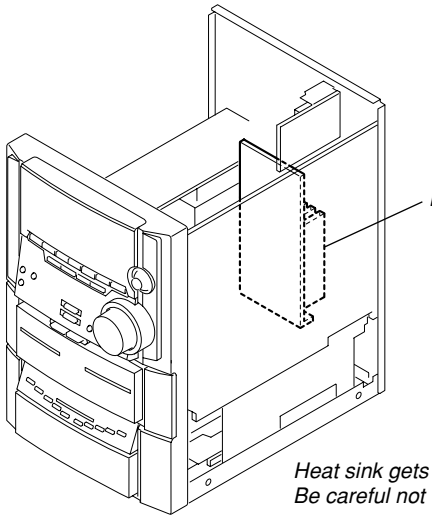
The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

MODEL IDENTIFICATION
– Back Panel –



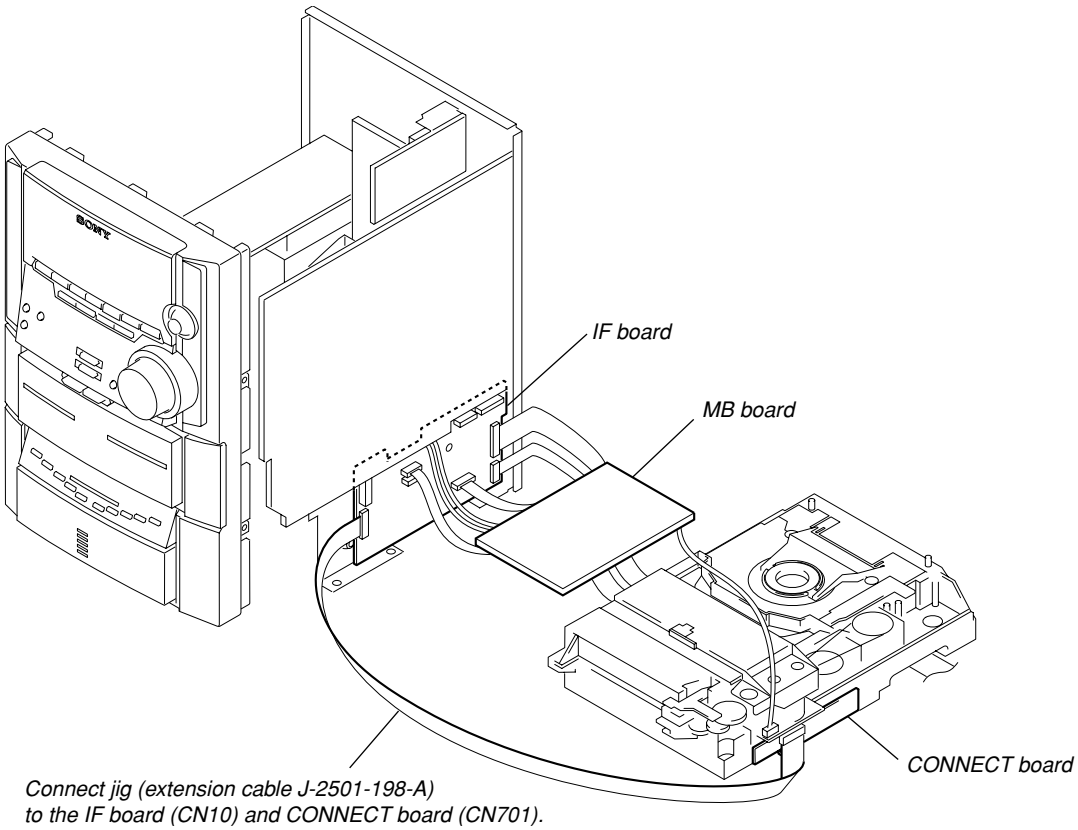
MODEL	PART No.
US model	4-227-558-0
Canadian model	4-227-558-1
AEP, UK, German and North European models	4-227-558-2
Saudi Arabia model	4-227-559-0
Malaysia and Singapore models	4-227-559-1
E model	4-227-559-2
Mexican model	4-227-559-3
Hong Kong model	4-227-559-4
Australian model	4-227-559-5
Thai model	4-227-559-6
Argentine model	4-227-559-7
Chinese model	4-227-559-8
Taiwan model	4-227-559-9

NOTE ON TEMPERATURE OF HEAT SINK



Heat sink gets heated up to a high temperature.
Be careful not to get burnt.

SERVICE POSITION
In checking the DVD block, prepare jig (extension cable J-2501-198-A: 700 mm 17 cores).

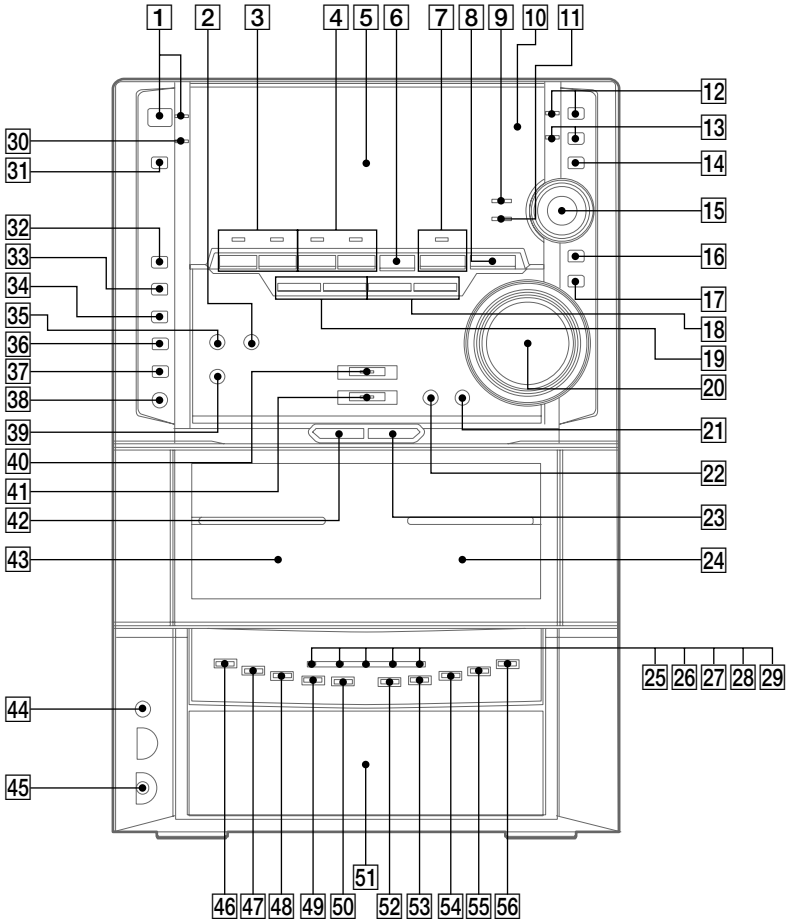


Connect jig (extension cable J-2501-198-A)
to the IF board (CN10) and CONNECT board (CN701).

SECTION 2
GENERAL

LOCATION OF CONTROLS

- **Front View**



1 I/⏻ button and indicator
2 CD SYNC button
3 TAPE A ◄/► buttons and indicators
4 TAPE B ◄/► buttons and indicators
5 Fluorescent indicator tube
6 ■ button
7 DVD ►II button and indicator
8 TUNER/BAND button
9 SET UP MODE indicator
10 Remote sensor
11 SOUND MODE indicator
12 DSP button and indicator
13 V-GROOVE button and indicator
14 MODE SELECT button
15 PUSH ENTER multi stick
16 TITLE button
17 DVD MENU button
18 ◄◄, ►► buttons
19 I◄◄, ►►I buttons
20 VOLUME knob
21 GROOVE button and indicator
22 GROOVE-EX button and indicator
23 ⏏ B button
24 Tape B deck
25 Disc 1 indicator
26 Disc 2 indicator
27 Disc 3 indicator
28 Disc 4 indicator
29 Disc 5 indicator
30 TIMER SELECT indicator
31 DISPLAY button
32 FUNCTION button
33 SELECT button
34 RETURN button
35 HI-DUB button
36 NEXT button
37 PREVIOUS button
38 PHONES jack
39 REC PAUSE/START button and indicator
40 PRO LOGIC button and indicator
41 DVD 5.1CH button and indicator
42 ⏏ A button
43 Tape A deck
44 MIC VOL knob
(EA, MY, SP, HK, TH, TW, CH)
45 MIC jack (EA, MY, SP, HK, TH, TW, CH)
46 DISC 1 button
47 DISC 2 button
48 DISC 3 button
49 DISC 4 button
50 DISC 5 button
51 Disc tray
52 ⏏ 1 button
53 ⏏ 2 button
54 ⏏ 3 button
55 ⏏ 4 button
56 ⏏ 5 button

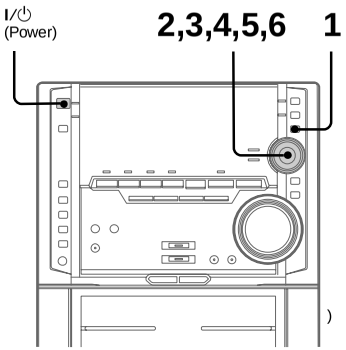
- Abbreviation
  CH : Chinese model
  EA : Saudi Arabia model
  MY : Malaysia model
  HK : Hong Kong model
  SP : Singapore model
  TH : Thai model
  TW : Taiwan model

Step 3: Setting the time

You must set the time before using the timer functions.

The clock is on a 24-hour system for the European model, and on a 12-hour system for other models.

For illustration purposes, the 12-hour system model is used.



1 Press MODE SELECT when the system is turned off.

"Clock Set ?" appears.
When the system is in the Power Saving Mode, "Clock Set ?" will not appear. Either set Power Saving Mode off, or follow the steps on this page ("To change the time") after turning the power on.

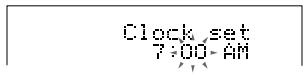
2 Press PUSH ENTER.

The hour indication flashes.

3 Move the multi stick toward ↑ or ↓ repeatedly to set the hour.

4 Move the multi stick toward →.

The minute indication flashes.



5 Move the multi stick toward ↑ or ↓ repeatedly to set the minute.

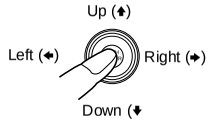
6 Press PUSH

To cancel the menu operation

Press MODE SELECT.

Tips

- Refer to the illustration to use the multi stick. Place your finger on the center of the multi stick and move in the direction you want (up/down or left/right shown ↑/↓ or ←/→ in this manual).



- All of the functions that use the multi stick can also be performed using ↑/↓/←/→ and ENTER on the remote.
- If you've made a mistake, start over from step 1.

To change the time

The previous explanation shows you how to set the time while the power is off. To change the time while the power is on, do the following:

1 Press MODE SELECT repeatedly to select "Set Up Mode", then press PUSH ENTER.
2 Move the multi stick toward ← or → repeatedly to select "Timer Set Up ?", then press PUSH ENTER.
3 Move the multi stick toward ← or → repeatedly to select "Clock Set ?", then press PUSH ENTER.
4 Perform steps 3 through 6 on this page.

Note

The clock settings are canceled when you disconnect the power cord or if a power failure occurs.

Parts Identification for the remote

You can also operate the system with the supplied remote.

* You can operate with the remote only.
** These buttons do not operate when the function is set to "DVD".

TV

Remote Button(s)	Function
TV I/⏻*	Turn the TV on or off.
TV/VIDEO*	Switch the TV's video input.
TV CH +/–*	Change the TV channels.
TV VOL +/–*	Adjusts the volume of the TV speaker(s).

TUNER

Remote Button(s)	Function
TUNER/BAND	Selects FM or AM.
⏮/⏭ (+, –)	Selects a preset number.
◀◀/▶▶	Scans for a station or selects a preset station.
numeric buttons >10*	Select a preset number.

continued

Parts Identification for the remote (continued)

DVD/VIDEO CD/CD

Remote Button(s)	Function
DVD ▶	Starts playback.
■	Stops playback.
❚❚	Pauses playback.
⏮/⏭ (PREV/NEXT)	Selects a chapter or track. For VIDEO CD, use NEXT to see the rest of the menu, and use PREV to go back to the top of the menu.
◀◀/▶▶	Locates a desired point in a track.
STEP ◀❚❚/❚❚▶*	Performs frame by frame playback of DVD and VIDEO CD.
SLOW ◀❚/❚▶*	Performs slow playback of DVD and VIDEO CD.
D.SKIP	Exchanges discs.
Numeric buttons*	Use for the menu operations.
DVD SETUP*	Displays the setup display on the TV screen.
RETURN↩	Returns to previously selected screen.
AUDIO*	Changes the audio sound track.
ANGLE*	Changes the angles when playing a DVD.
SUBTITLE*	Changes the subtitle language.
TITLE	Displays the title menu on the TV screen.
DVD MENU	Displays the DVD menu on the TV screen.
DVD DISPLAY*	Displays the control menu screens.
DISPLAY	Changes the front panel display.

TAPE

Remote Button(s)	Function
TAPE A ◀❚▶ TAPE B ◀❚▶	Starts playback. Each time you press this button, the tape reverses direction.
■	Stops playback.
⏮/⏭	Searches for the beginning of a Track (AMS: Automatic Music Sensor).
◀◀/▶▶	Fast-forwards or rewinds.

TIMER

Remote Button(s)	Function
SLEEP*	Selects a sleep timer.

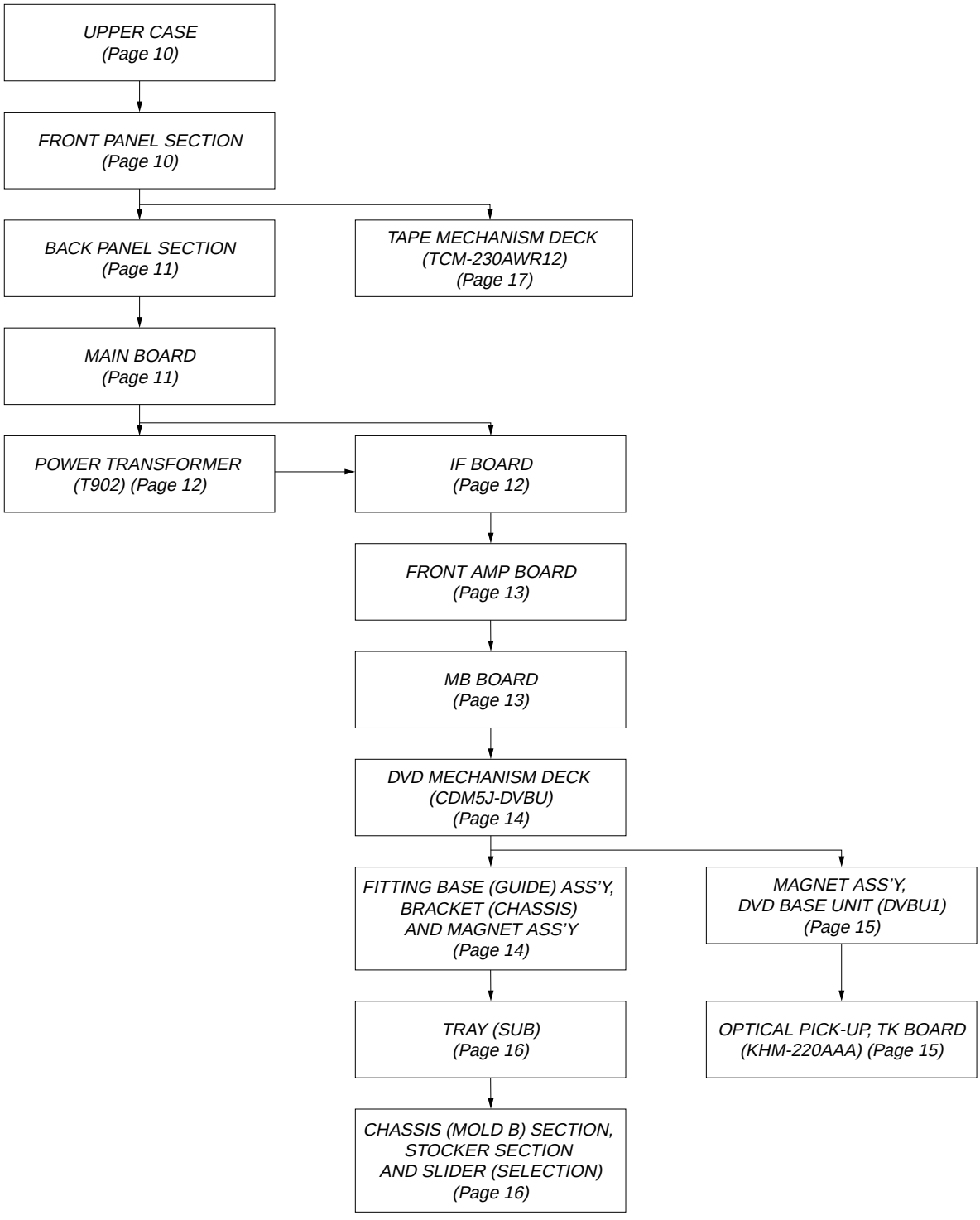
OTHERS

Remote Button(s)	Function
I/⏻	Turns the system on or off.
VOL +/–	Adjusts the volume.
←/→/↑/↓ ENTER	Use to select menu and adjust the settings.
FUNCTION	Selects the function.
CLEAR*	Restores a setting to the factory preset.
MODE SELECT	Enters the menu mode.
FILE SELECT	Selects the preset audio effect file.
MD*	Press to listen to the connected MD deck.
VIDEO*	Press to listen to the connected VCR.
MULTI/2CH	Press to switch between multi channel and stereo audio.
PRO LOGIC ON/OFF	Activates the Pro Logic effects.
T.TONE ON/OFF*,**	Use to test each speaker's volume.
DSP	Activates the surround effects.
CENTER LEVEL +/–*,**	Adjusts the center speaker level.
REAR LEVEL +/–*,**	Adjusts the rear speaker level.

This section is extracted from instruction manual.

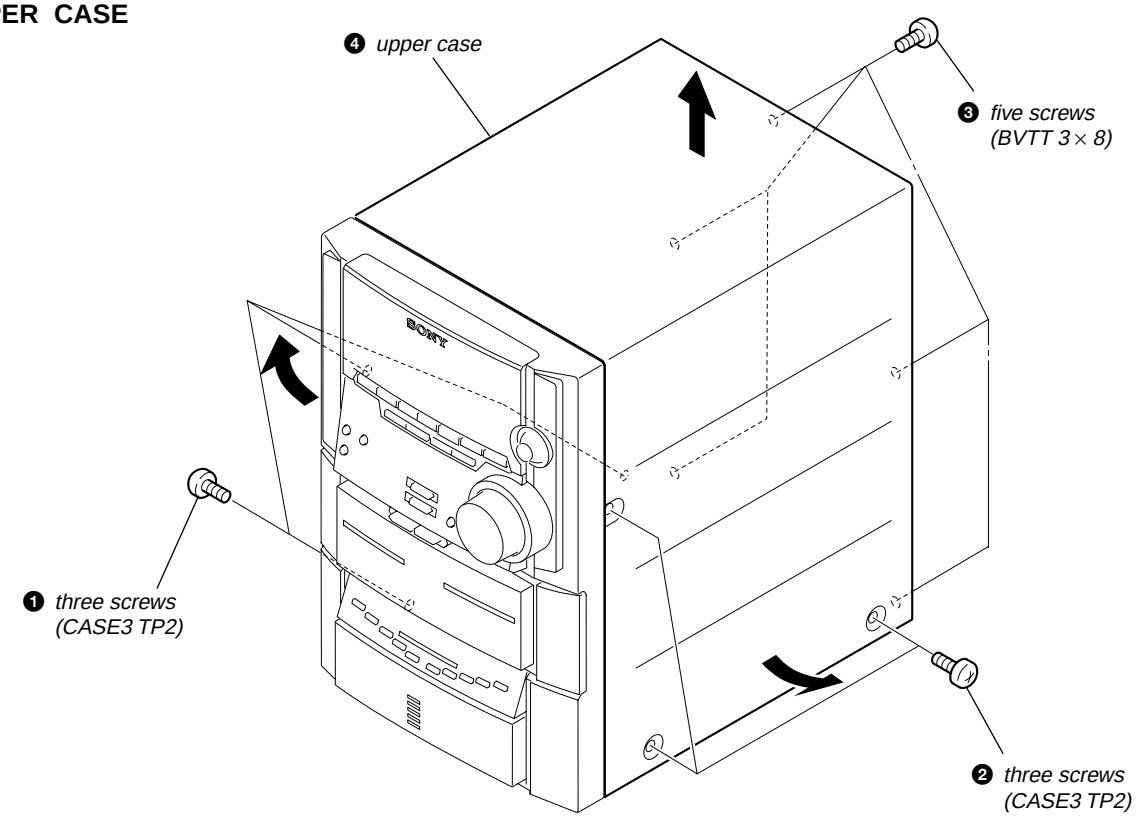
SECTION 3
DISASSEMBLY

- This set can be disassembled in the order shown below.

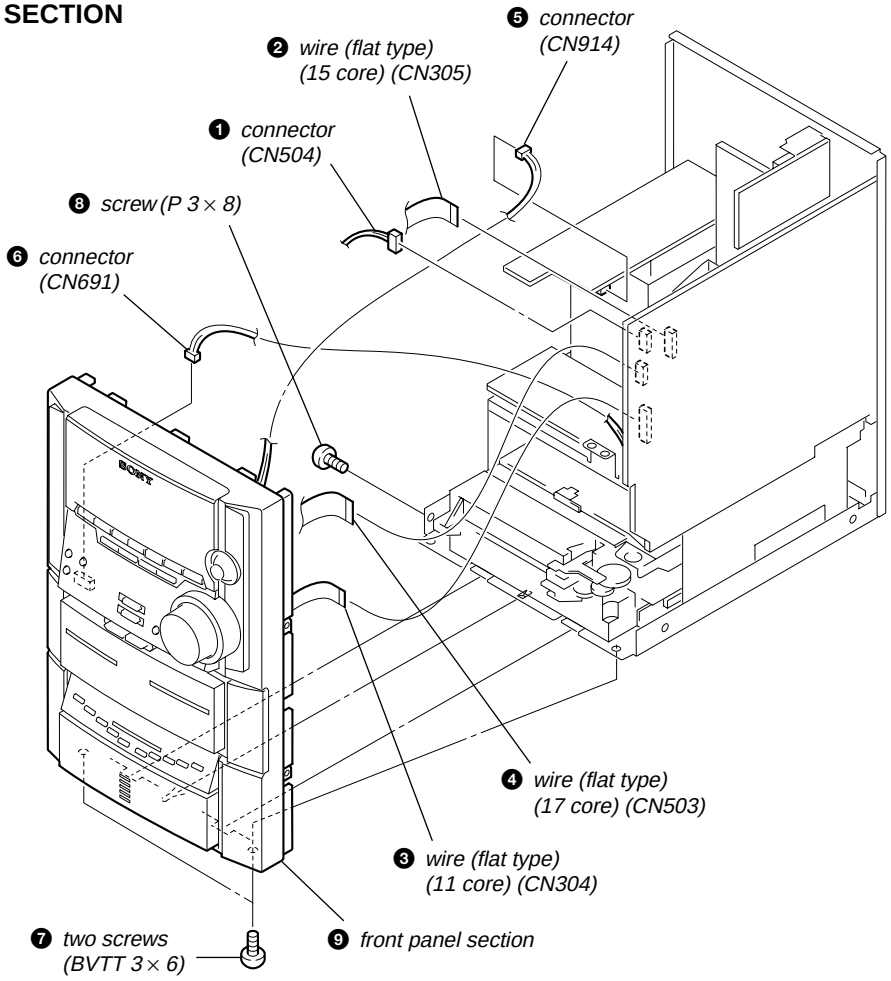


Note: Follow the disassembly procedure in the numerical order given.

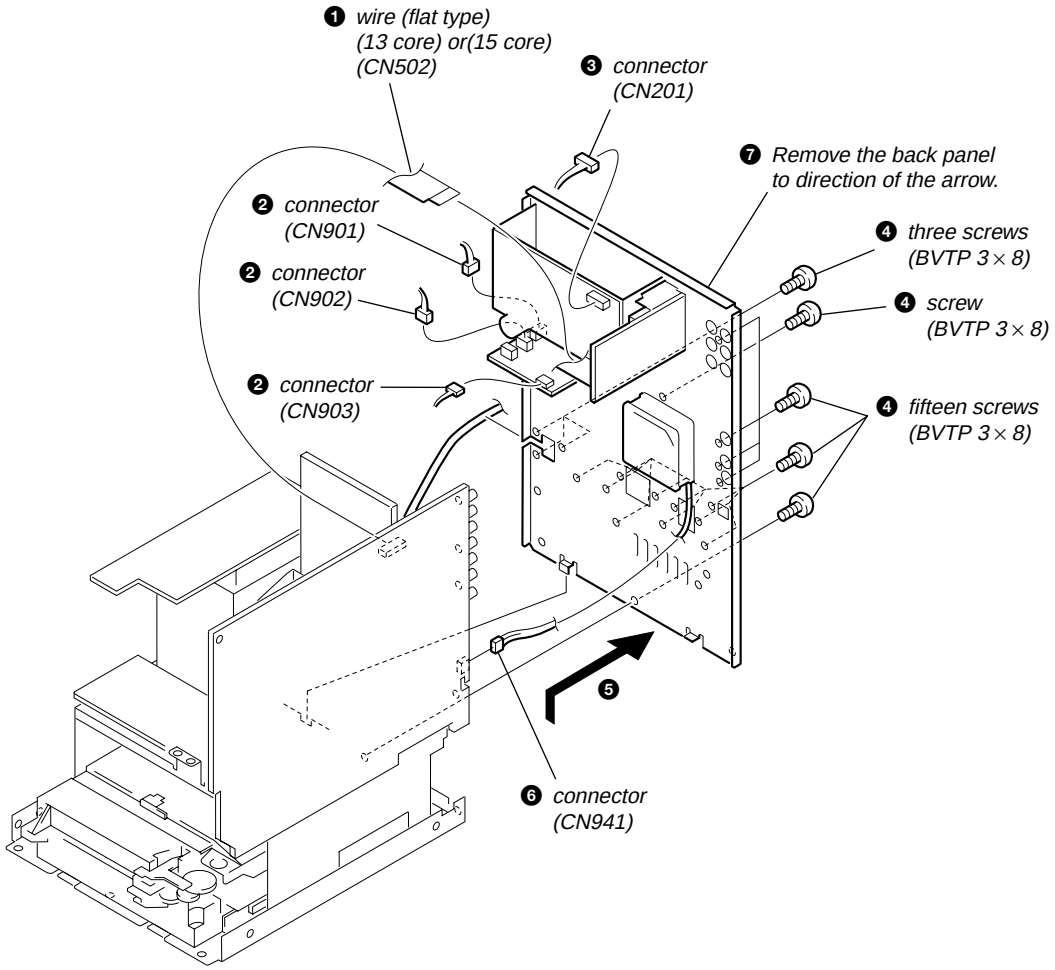
UPPER CASE



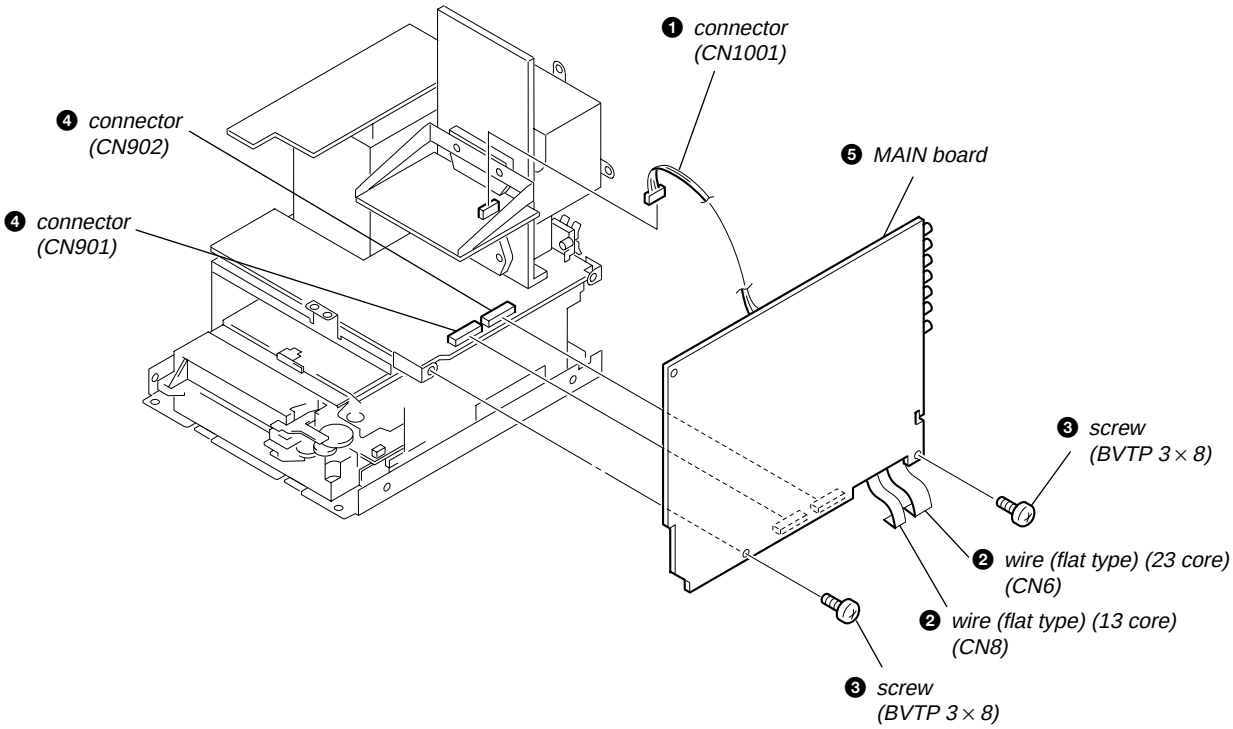
FRONT PANEL SECTION



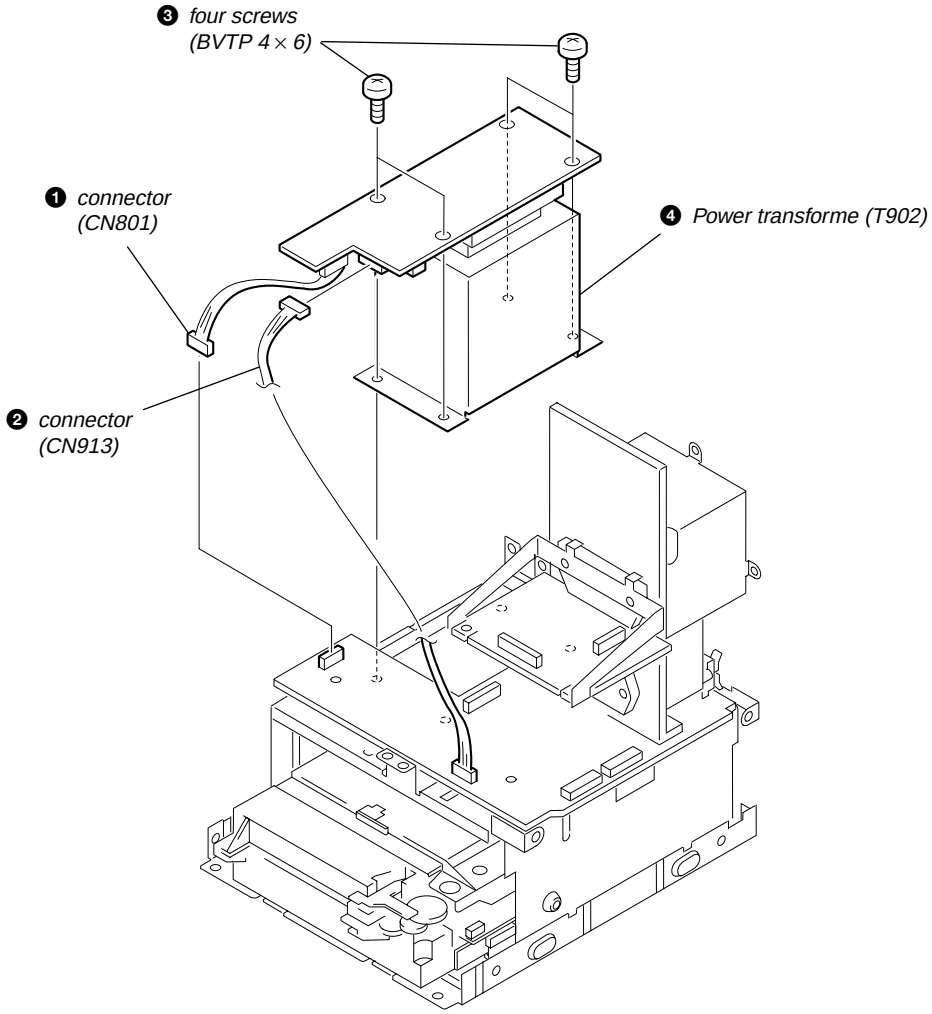
BACK PANEL SECTION



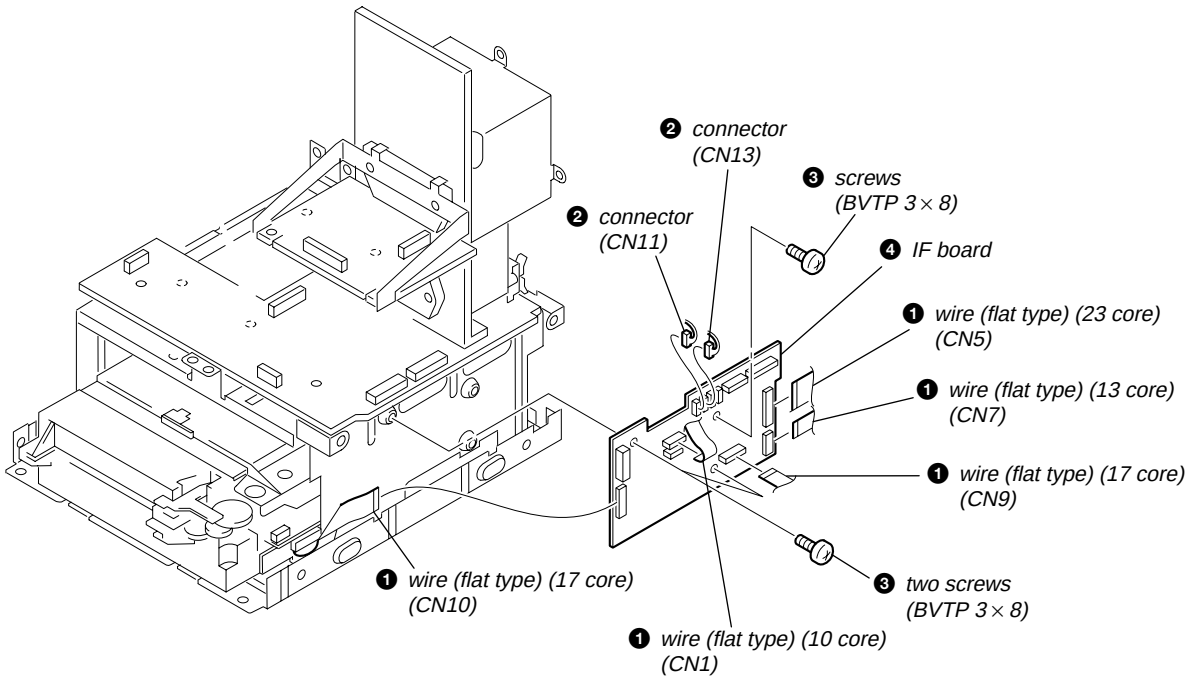
MAIN BOARD



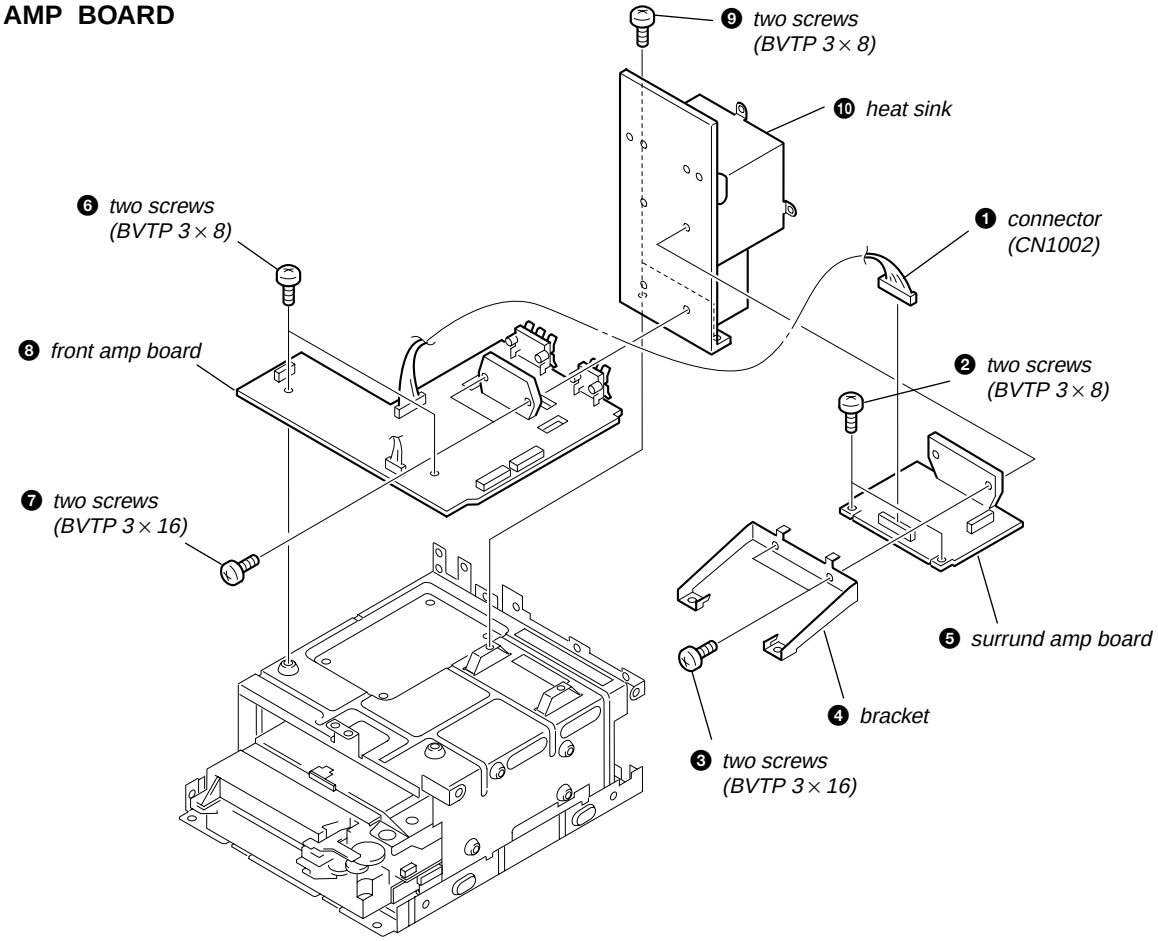
POWER TRANSFORMER (T902)



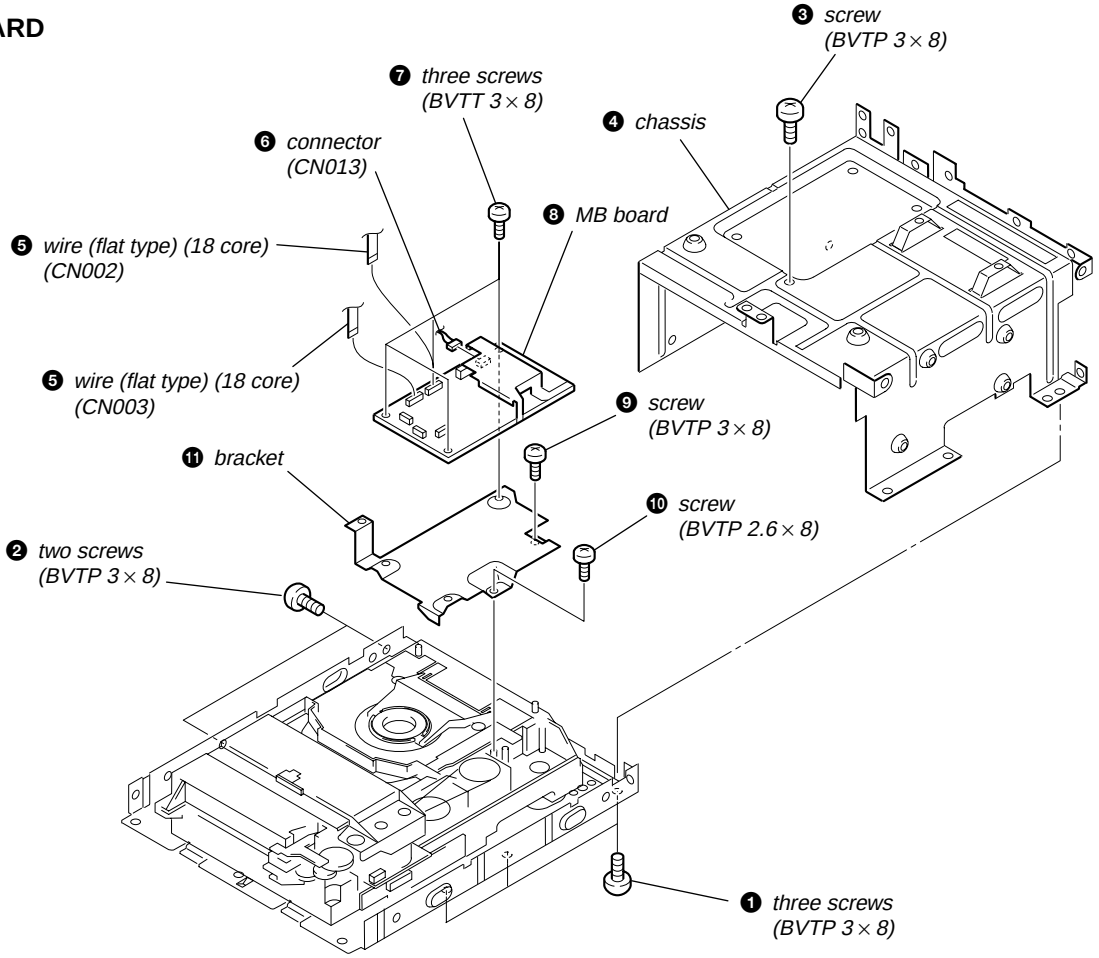
IF BOARD



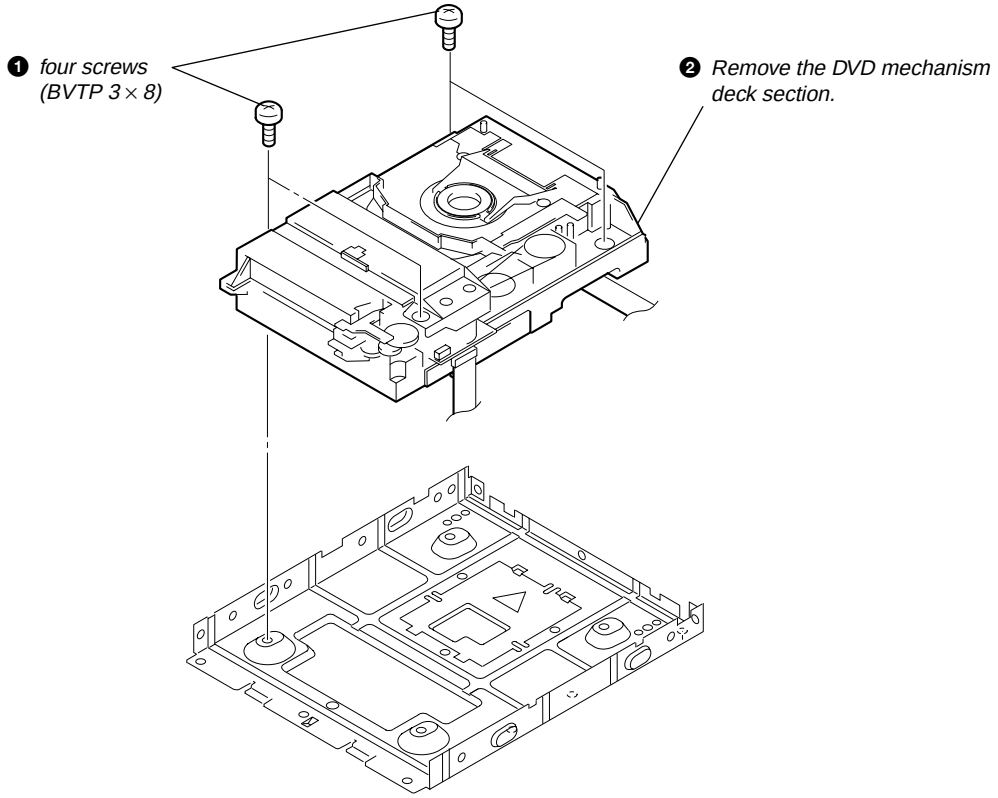
FRONT AMP BOARD



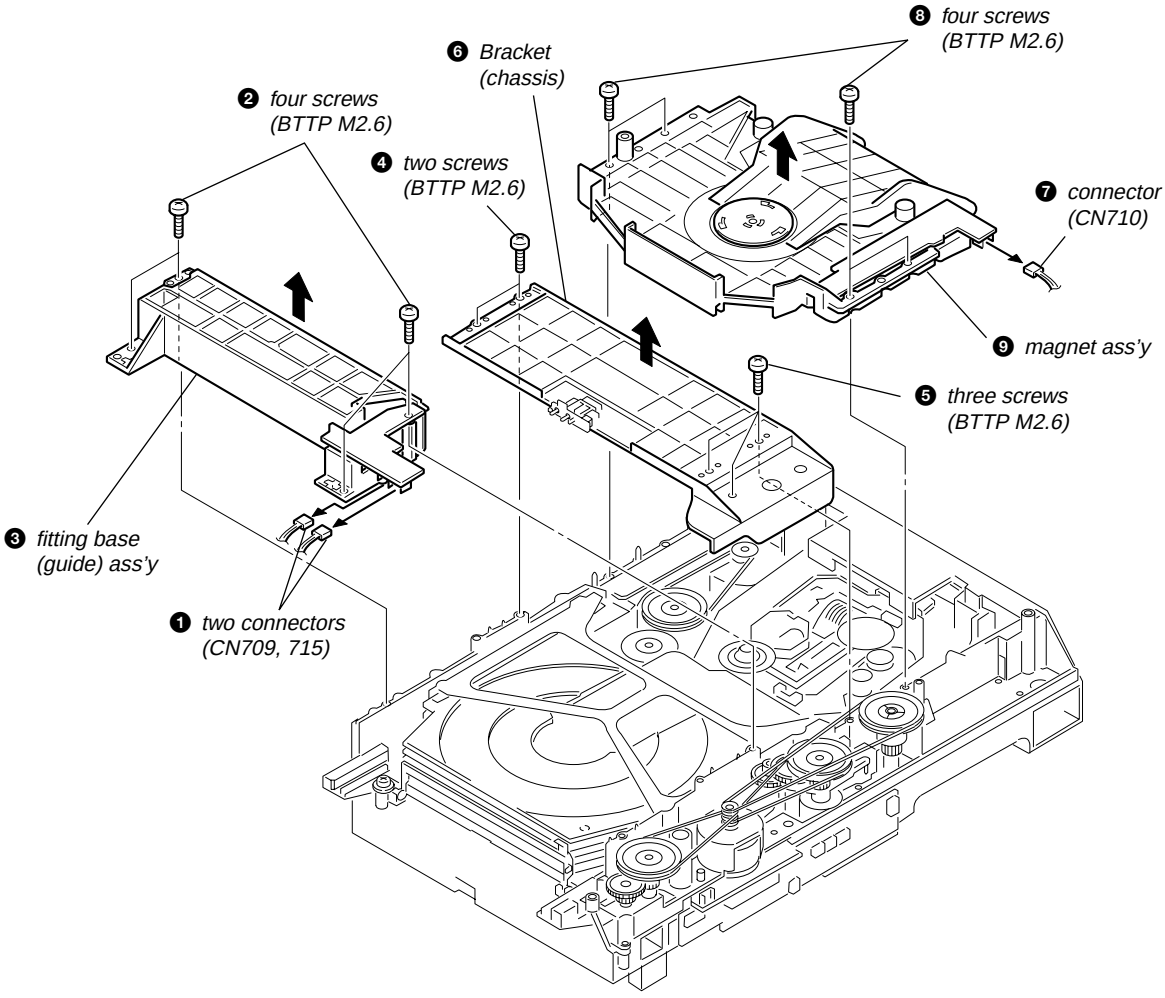
MB BOARD



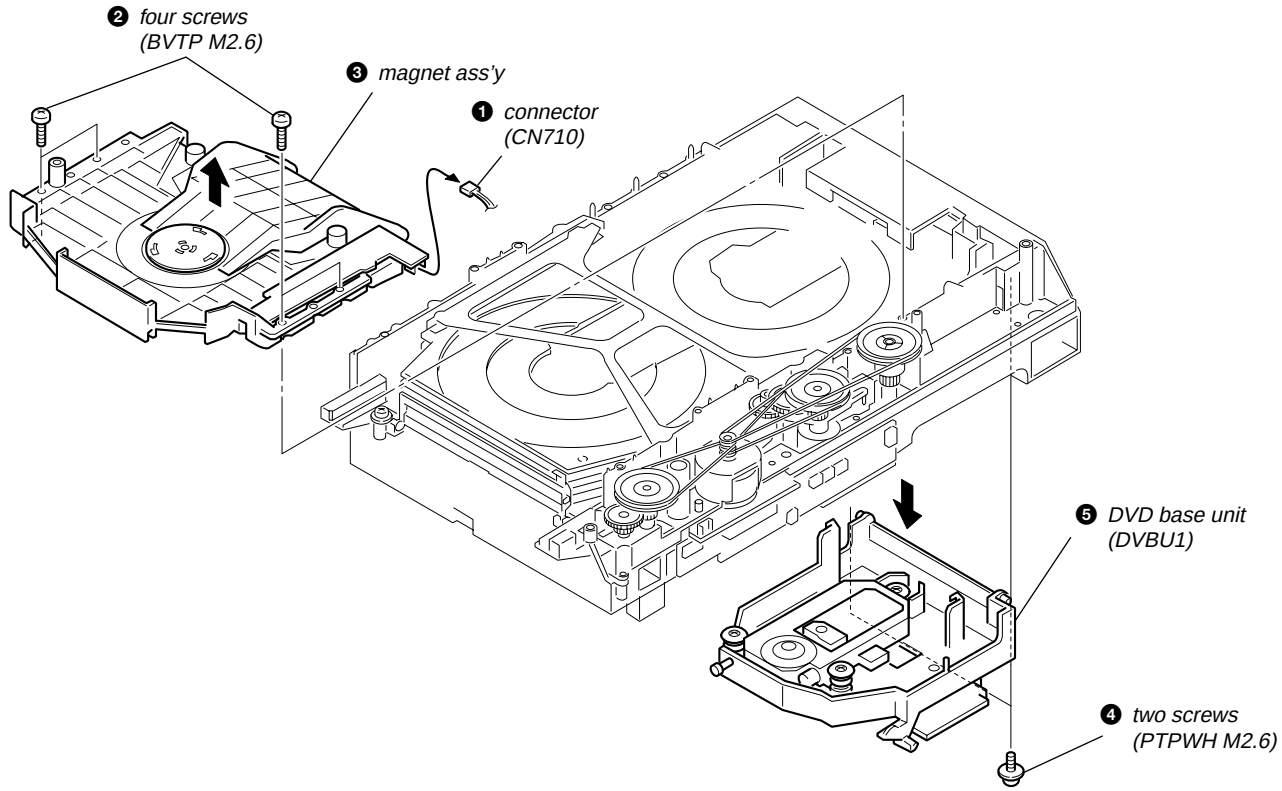
DVD MECHANISM DECK (CDM5J-DVBU)



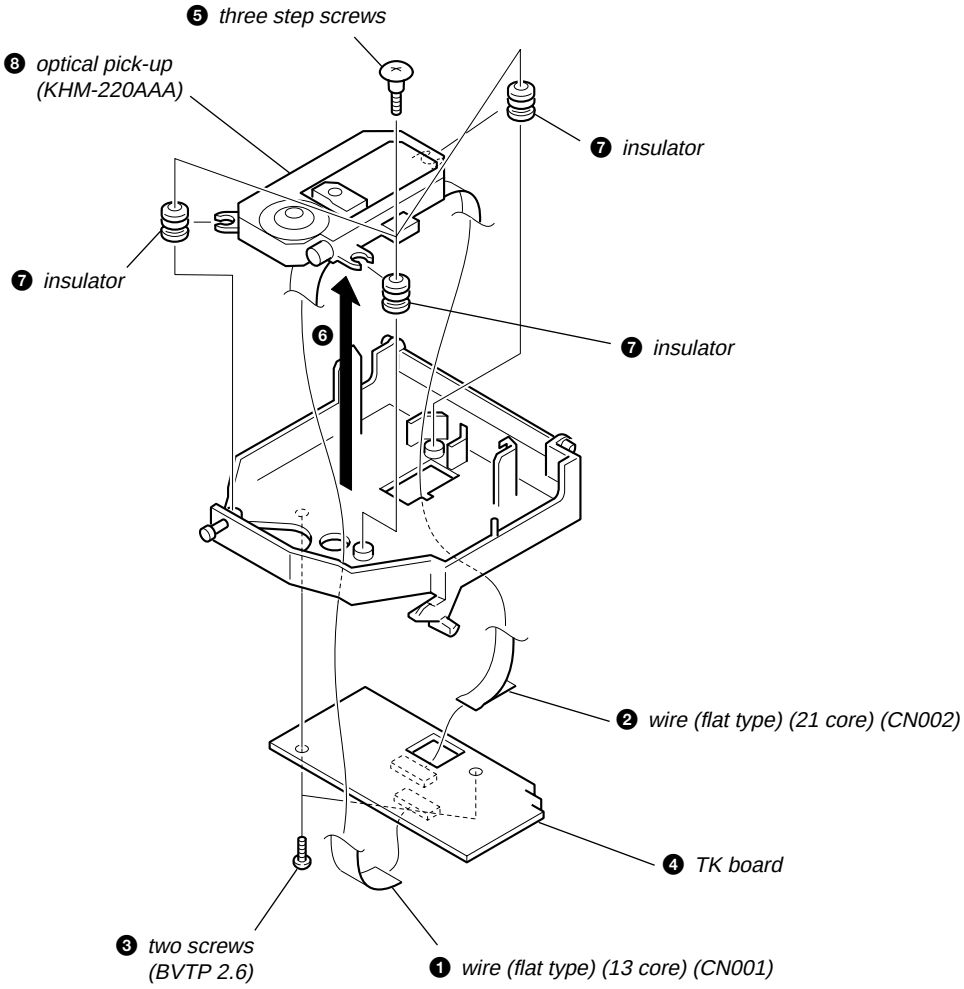
FITTING BASE (GUIDE) ASS'Y, BRACKET (CHASSIS) AND MAGNET ASS'Y



MAGNET ASS'Y, DVD BASE UNIT (DVBU1)

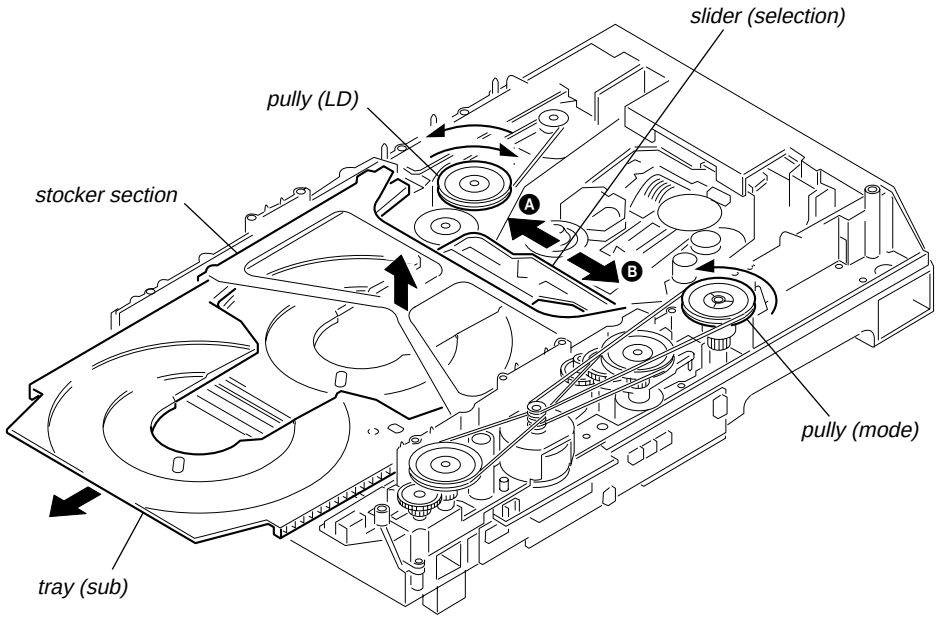


OPTICAL PICK-UP (KHM-220AAA), TK BOARD

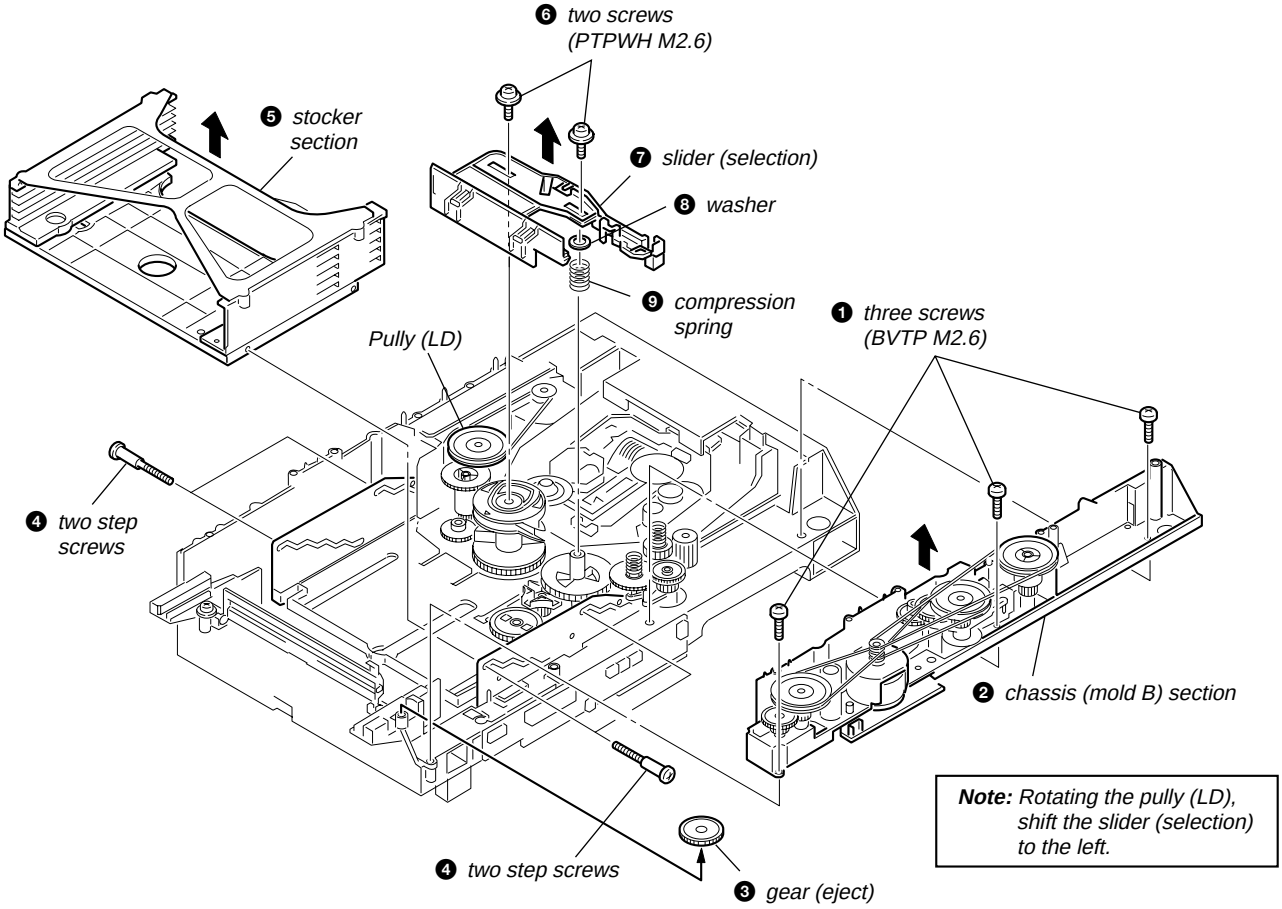


TRAY (SUB)

❶ *Rotating the pulley (LD), shift the slider (selection) in the arrow Ⓐ direction.*
❷ *Rotating the pulley (mode) in the arrow direction, adjust the tray (sub) to be removed.*
❸ *Rotating the pulley (LD), shift the slider (selection) in the arrow Ⓑ direction.*
❹ *Rotating the pulley (mode) in the arrow direction, remove the tray (sub) to be removed.*

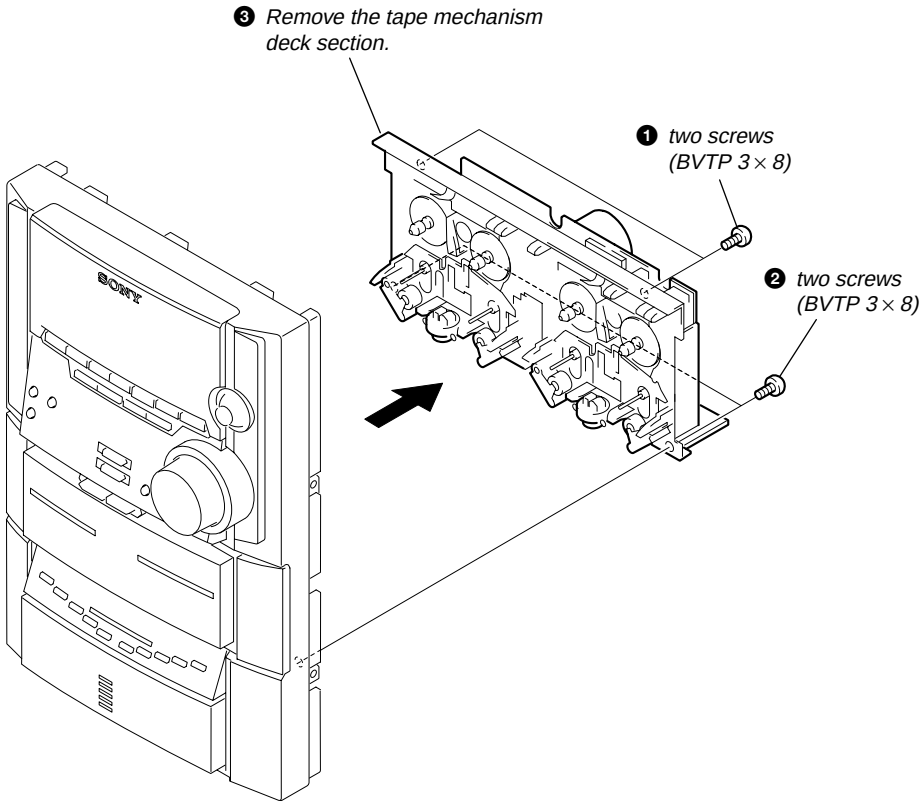


CHASSIS (MOLD B) SECTION, STOCKER SECTION AND SLIDER (SELECTION)



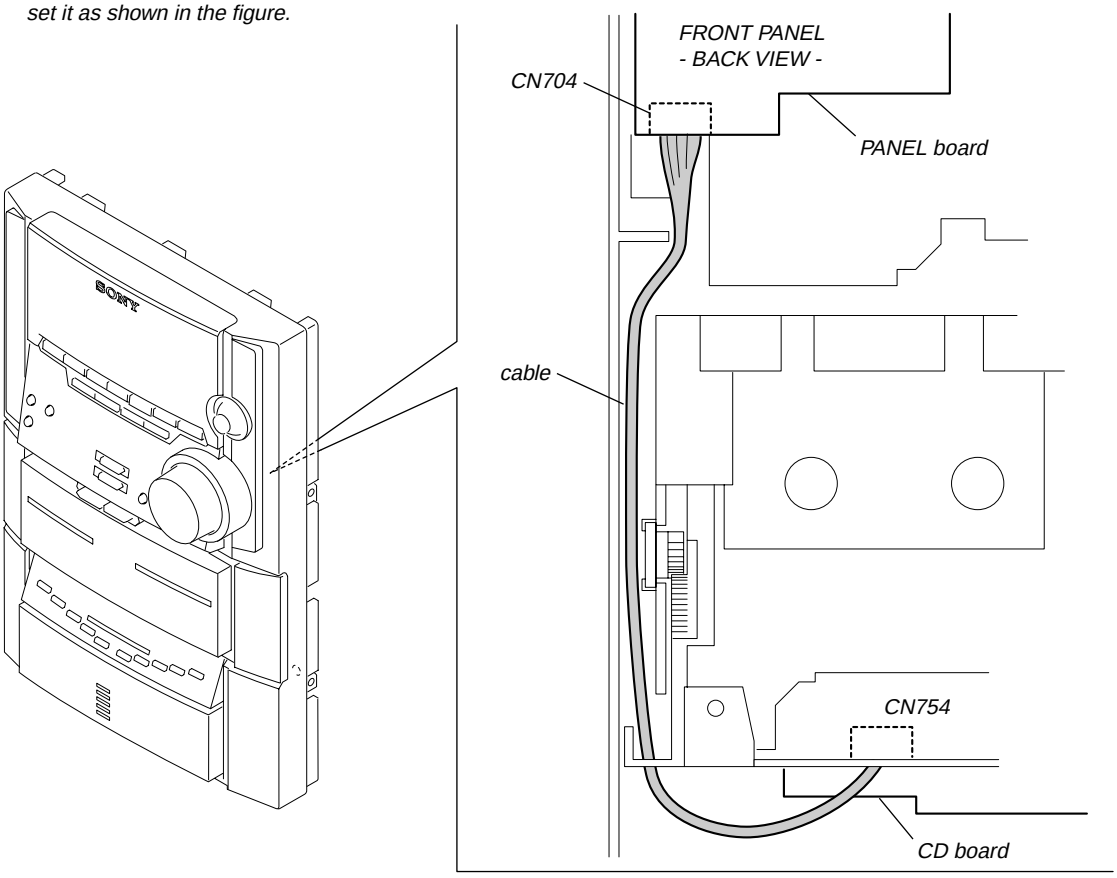
Note: *Rotating the pully (LD), shift the slider (selection) to the left.*

TAPE MECHANISM DECK (TCM-230AWR12)



CABLE SETTING

When connecting the cable from PANEL board (CN704) to CD board (CN754), set it as shown in the figure.



SECTION 4
ASSEMBLY

GEARS INSTALLATION (Page 18)

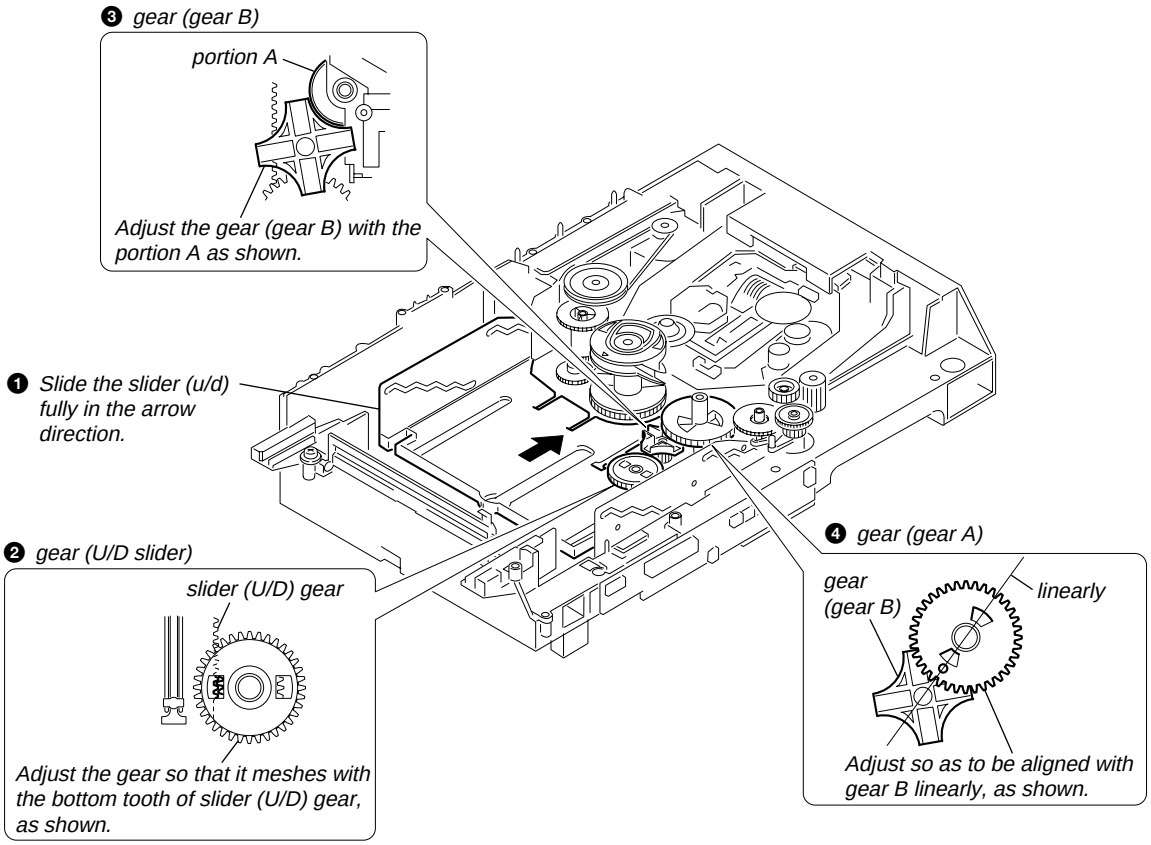
SLIDER (SELECTION) INSTALLATION (Page 19)

STOCKER SECTION INSTALLATION (Page 19)

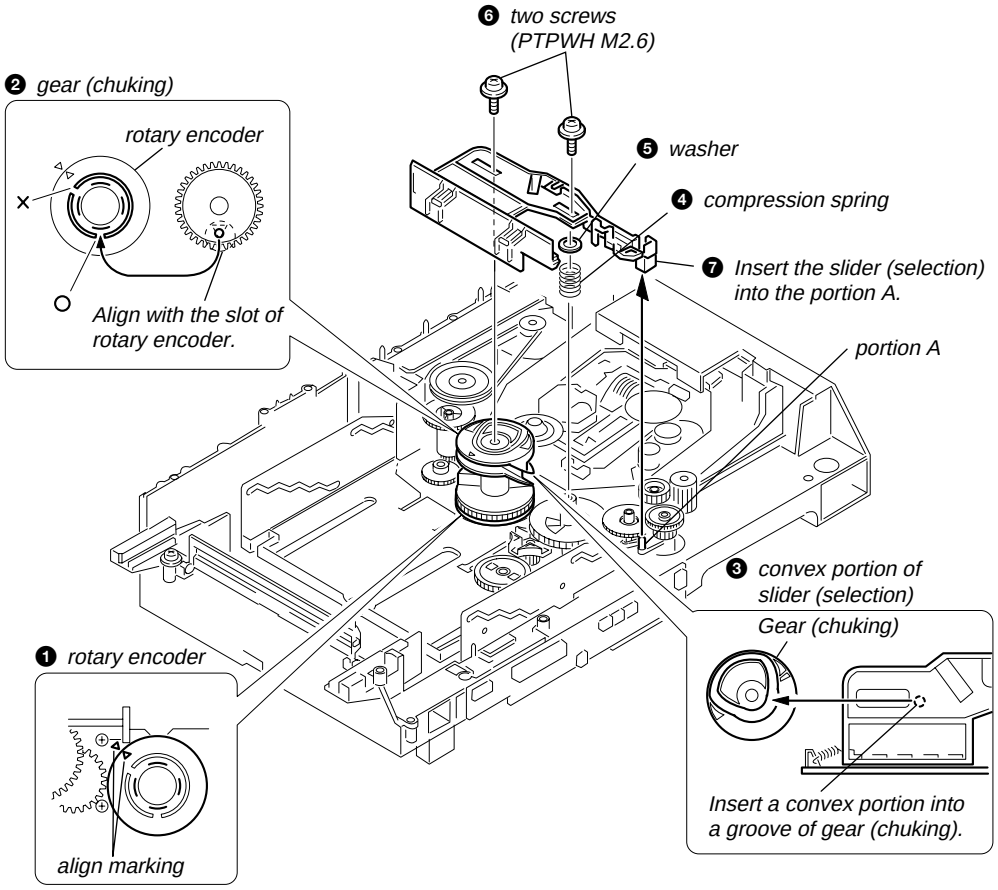
CHASSIS (MOLD B) SECTION INSTALLATION (Page 20)

Note: Follow the assembly procedure in the numerical order given.

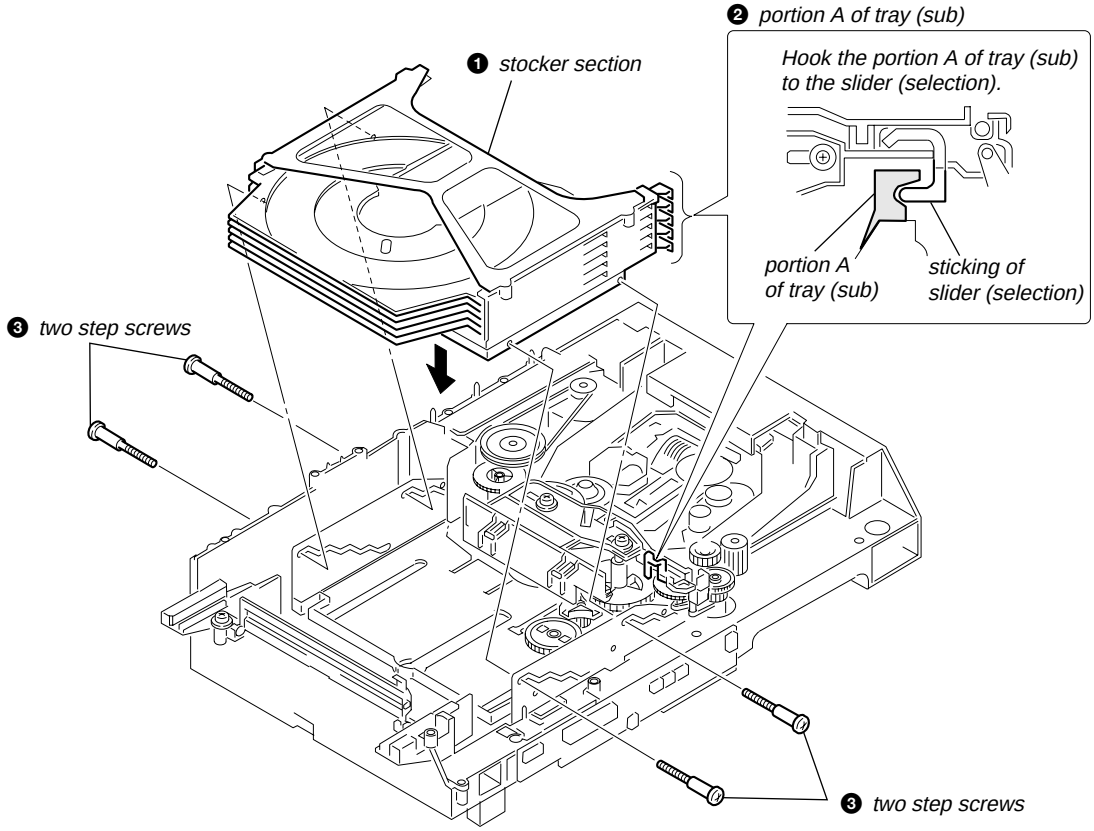
GEARS INSTALLATION


❸ gear (gear B)
portion A
Adjust the gear (gear B) with the portion A as shown.
❶ Slide the slider (u/d) fully in the arrow direction.
❷ gear (U/D slider)
slider (U/D) gear
Adjust the gear so that it meshes with the bottom tooth of slider (U/D) gear, as shown.
❹ gear (gear A)
gear (gear B)
linearly
Adjust so as to be aligned with gear B linearly, as shown.

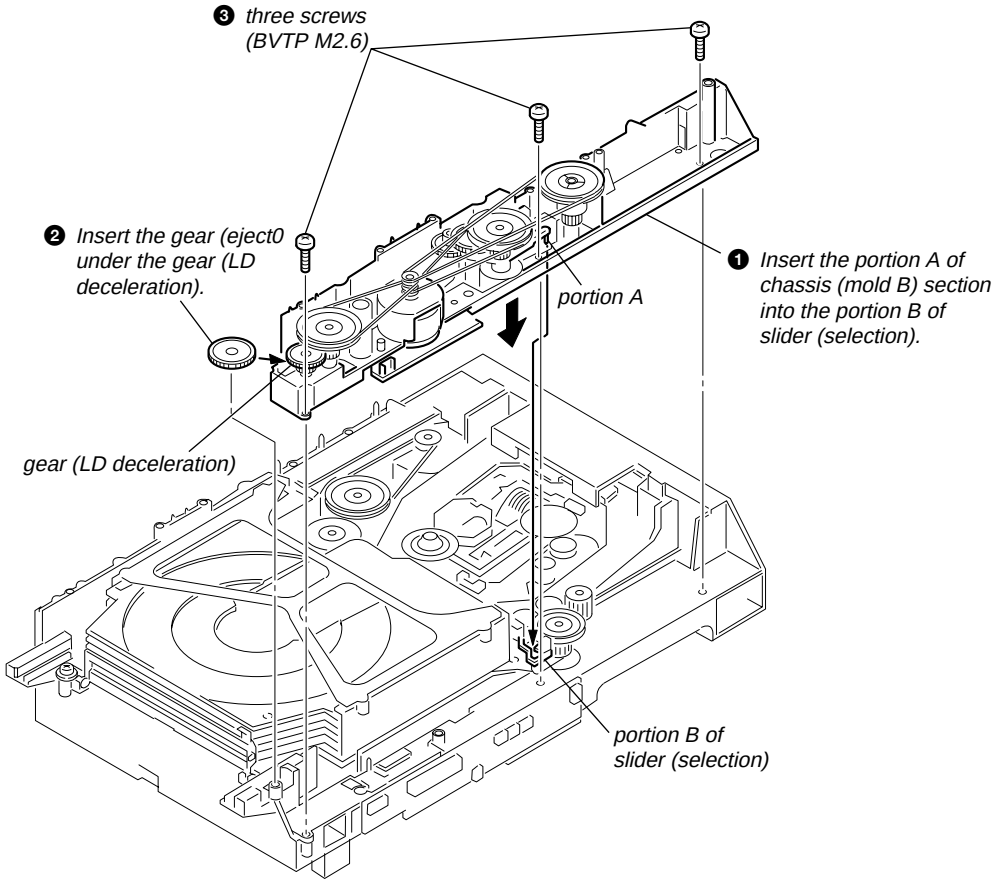
SLIDER (SELECTION) INSTALLATION



STOCKER SECTION INSTALLATION



CHASSIS (MOLD B) SECTION INSTALLATION



SECTION 5
MECHANICAL ADJUSTMENT

Precaution

1. Clean the following parts with a denatured alcohol-moistened swab:
   record/playback heads — pinch rollers
   erase head — rubber belts
   capstan — idlers
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Mode	Torque meter	Meter reading
FWD	CQ-102C	3.06 N • m to 6.96 N • m 31 to 71 g • cm (0.43 – 0.98 oz • inch)
FWD back tension	CQ-102C	0.19 N • m to 0.58 N • m 2 to 6 g • cm (0.02 – 0.08 oz • inch)
REV	CQ-102RC	3.06 N • m to 6.96 N • m 31 to 71 g • cm (0.43 – 0.98 oz • inch)
REV back tension	CQ-102RC	0.19 N • m to 0.58 N • m 2 to 6 g • cm (0.02 – 0.08 oz • inch)
FF/REW	CQ-201B	6.96 N • m to 14.02 N • m 71 to 143 g • cm (0.98 – 1.99 oz • inch)
FWD tension	CQ-403A	9.80 N • m 100 g or more (3.53 oz or more)
REV tension	CQ-403R	9.80 N • m 100 g or more (3.53 oz or more)

MEMO

SECTION 6
DIAGRAMS

6-1. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note on Printed Wiring Boards:

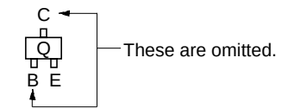
- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ⬚← : indicates side identified with part number.
- ▒▒▒ : Pattern from the side which enables seeing.

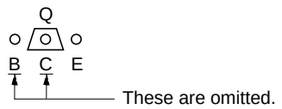
(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.

- MB board is multi-layer printed board. However, the patterns of intermediate-layer have not been included in the diagram.

- Indication of transistor





Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- % : indicates tolerance.
- △ : internal component.
- : nonflammable resistor.
- : fusible resistor.
- : panel designation.

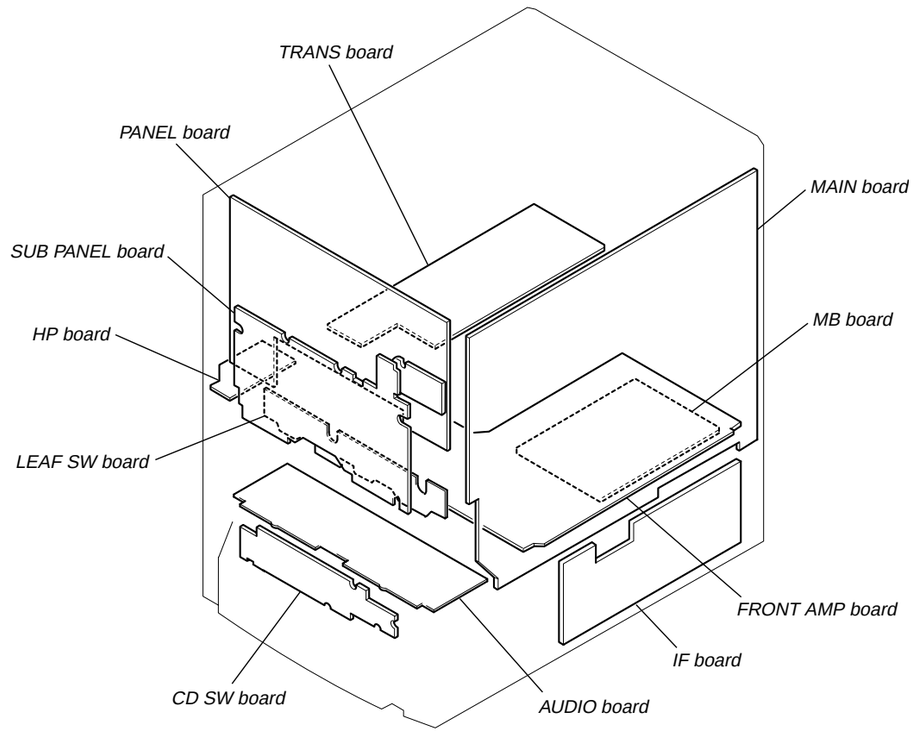
Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

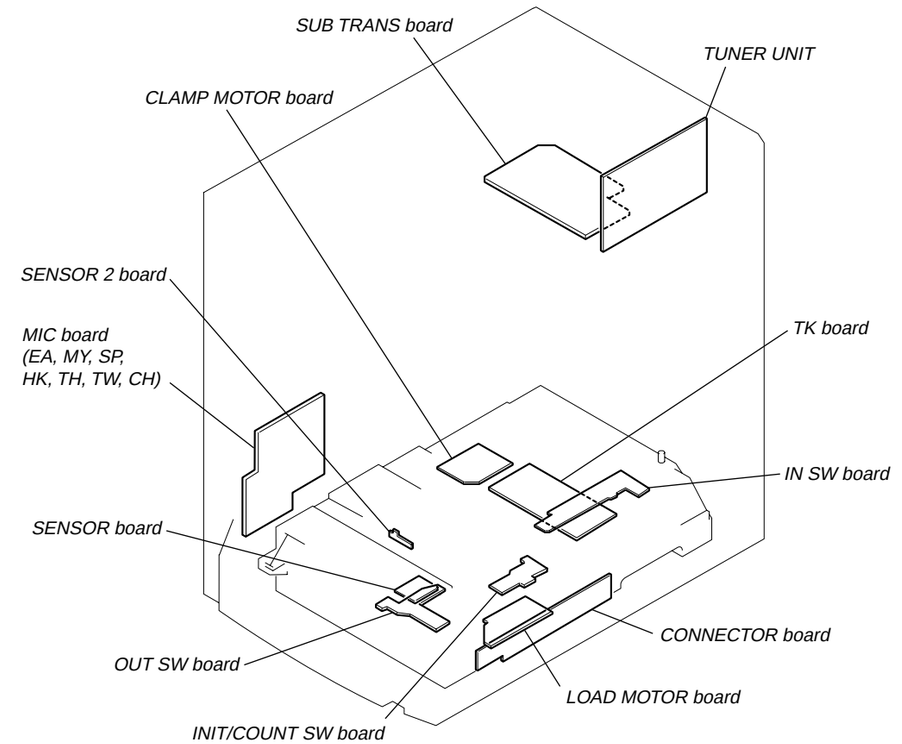
以阴影和⚠标志来识别的零部件在安全方面具有关键性。因此只能以规定号码的零部件来更换。

- B+ : B+ Line.
- B– : B– Line.
- : adjustment for repair.
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  - : DVD PLAY
  - : CD PLAY
  - : DVD/CD PLAY (VIDEO)
  - : DVD/CD PLAY (AUDIO)
  - : DVD/CD PLAY (DIGITAL OUT)
  - : TUNER
  - : TAPE A PLAY
  - : TAPE B PLAY
  - : TAPE B REC
  - : MIC
- Abbreviation

AR	: Argentine model
AUS	: Australian model
CH	: Chinese model
CND	: Canadian model
EA	: Saudi Arabia model
HK	: Hong Kong model
MX	: Mexican model
MY	: Malaysia model
SP	: Singapore model
TH	: Thai model
TW	: Taiwan model

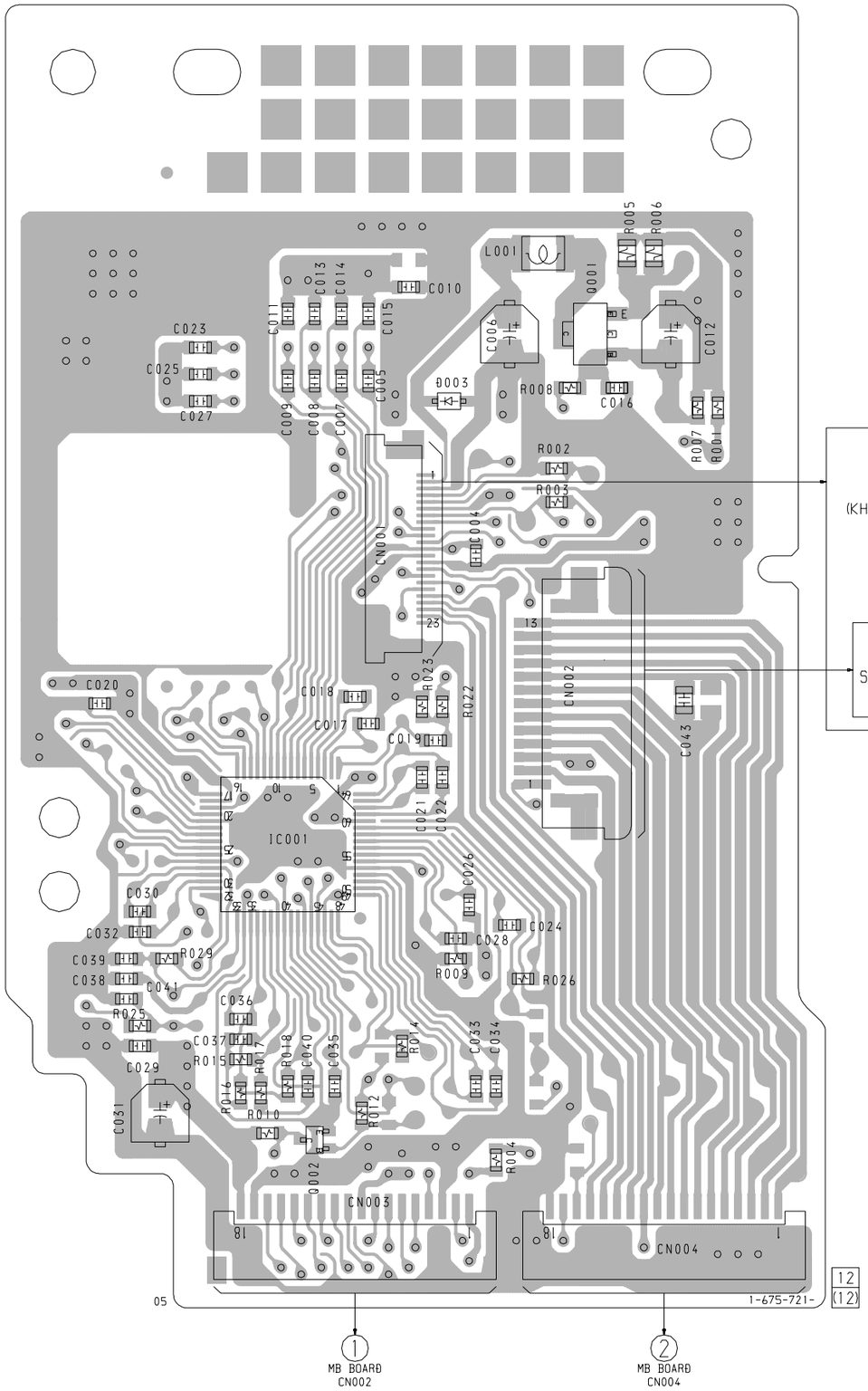
- **Circuit Boards Location**





6-2. PRINTED WIRING BOARD – TK Board – • See page 23 for Circuit Boards Location.

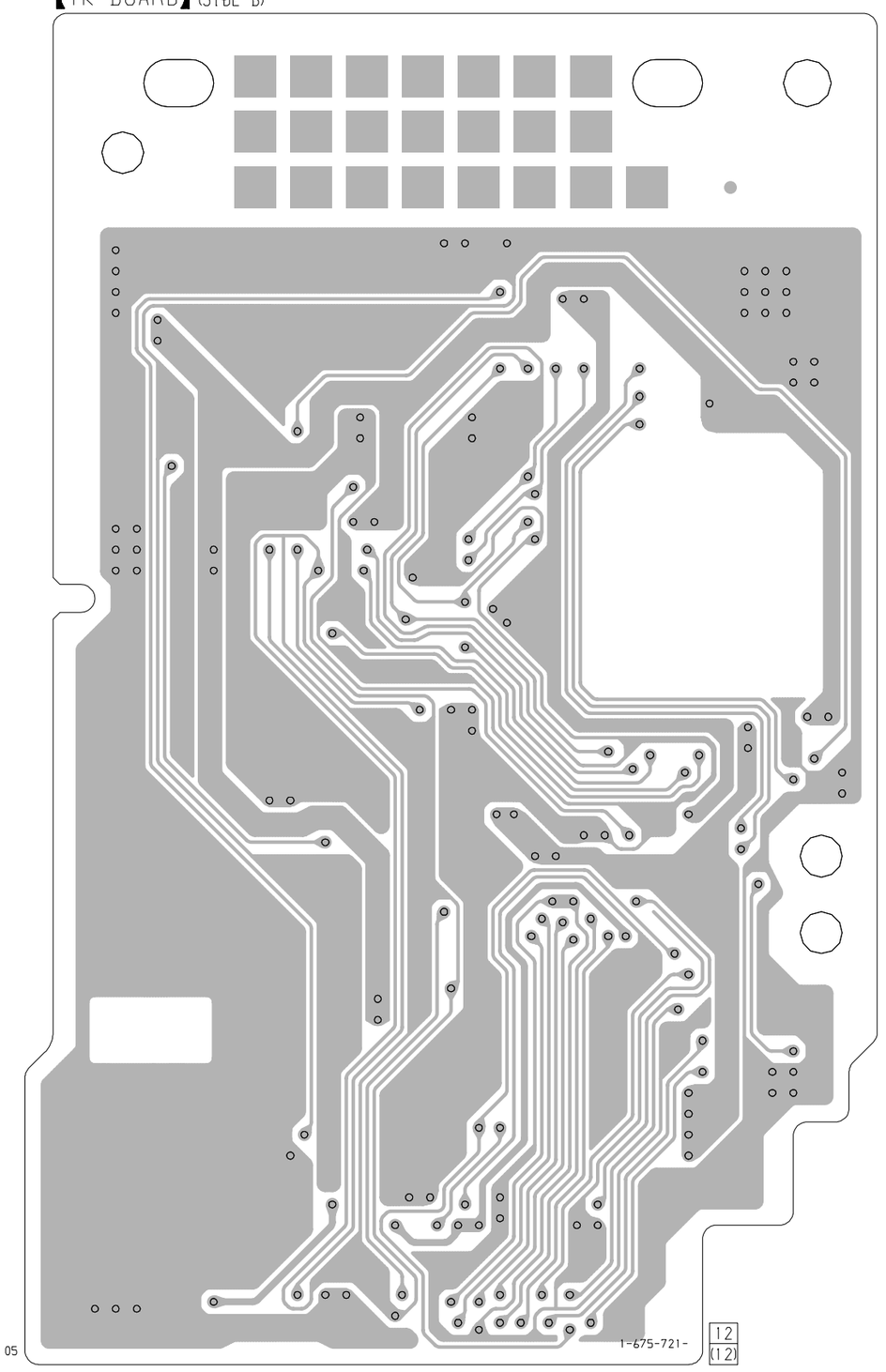
【TK BOARÐ】(SIÐE A)



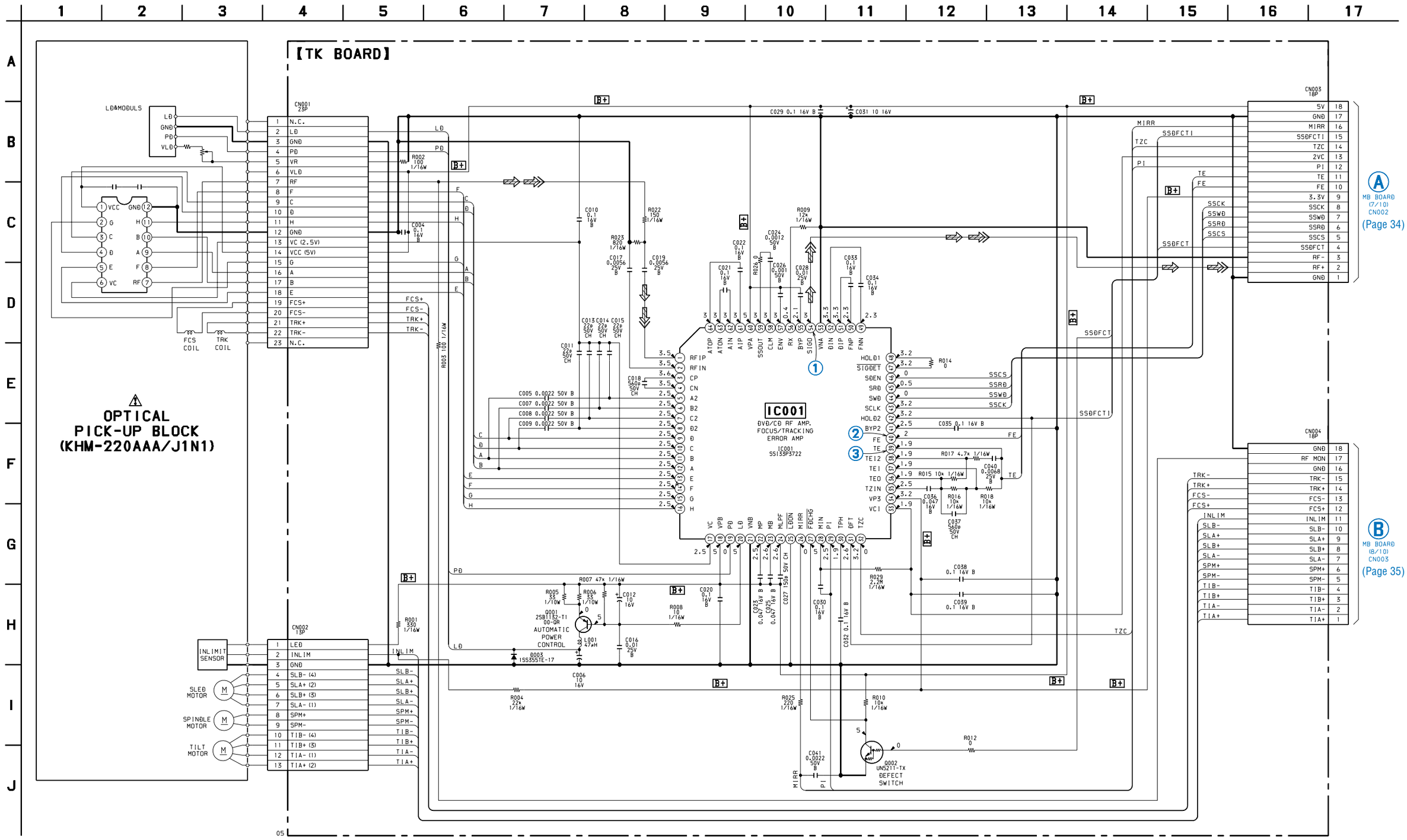
(Page 26)

(Page 26)

【TK BOARÐ】(SIÐE B)



6-3. SCHEMATIC DIAGRAM – TK Board – • See page 62 for Waveforms.



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

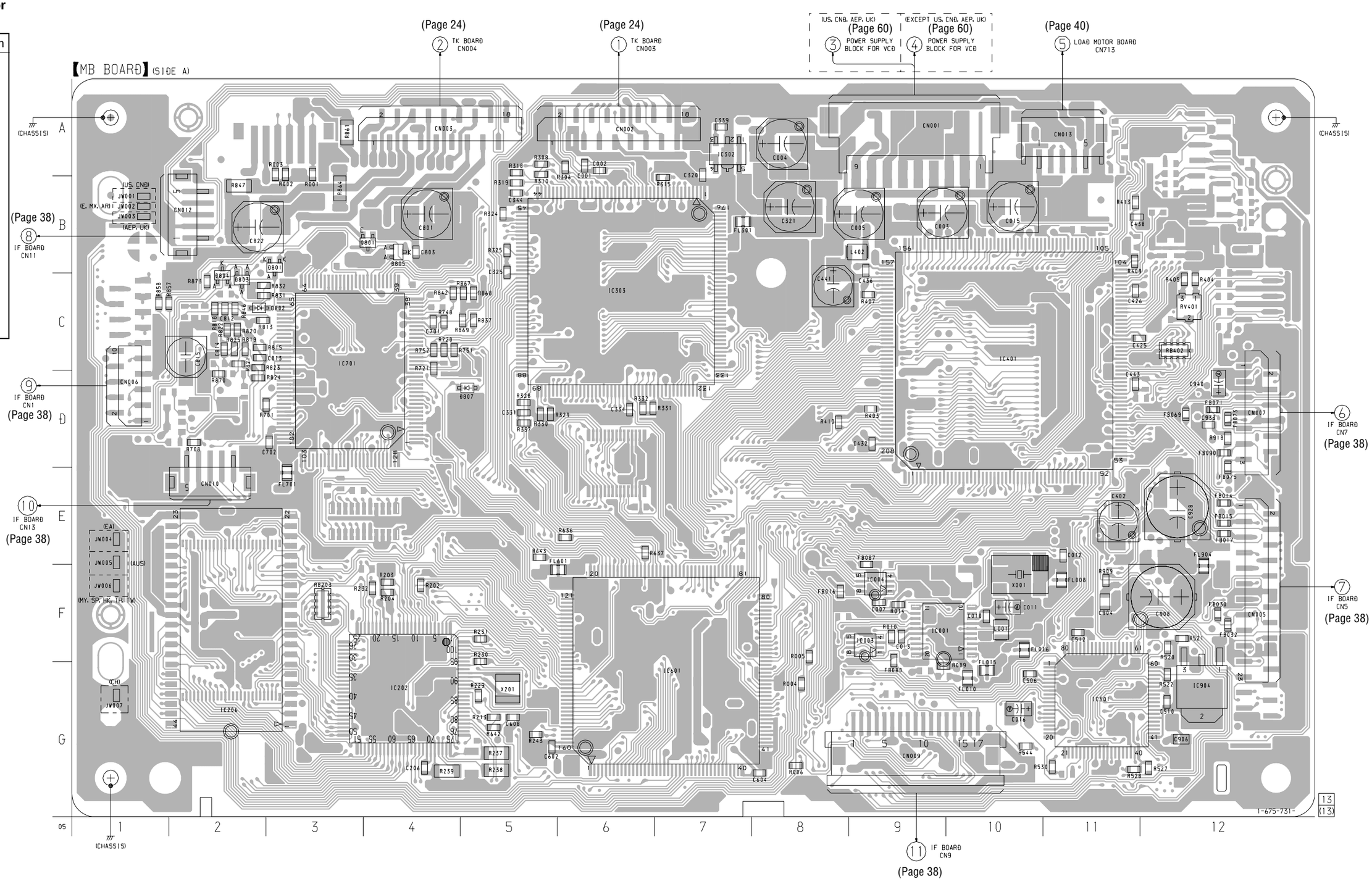
以阴影和⚠标志来识别的零部件在安全方面具有关键性。因此只能以规定号码的零部件来更换。

- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : DVD STOP

6-4. PRINTED WIRING BOARD – MB Board (Side A) – • See page 23 for Circuit Boards Location.

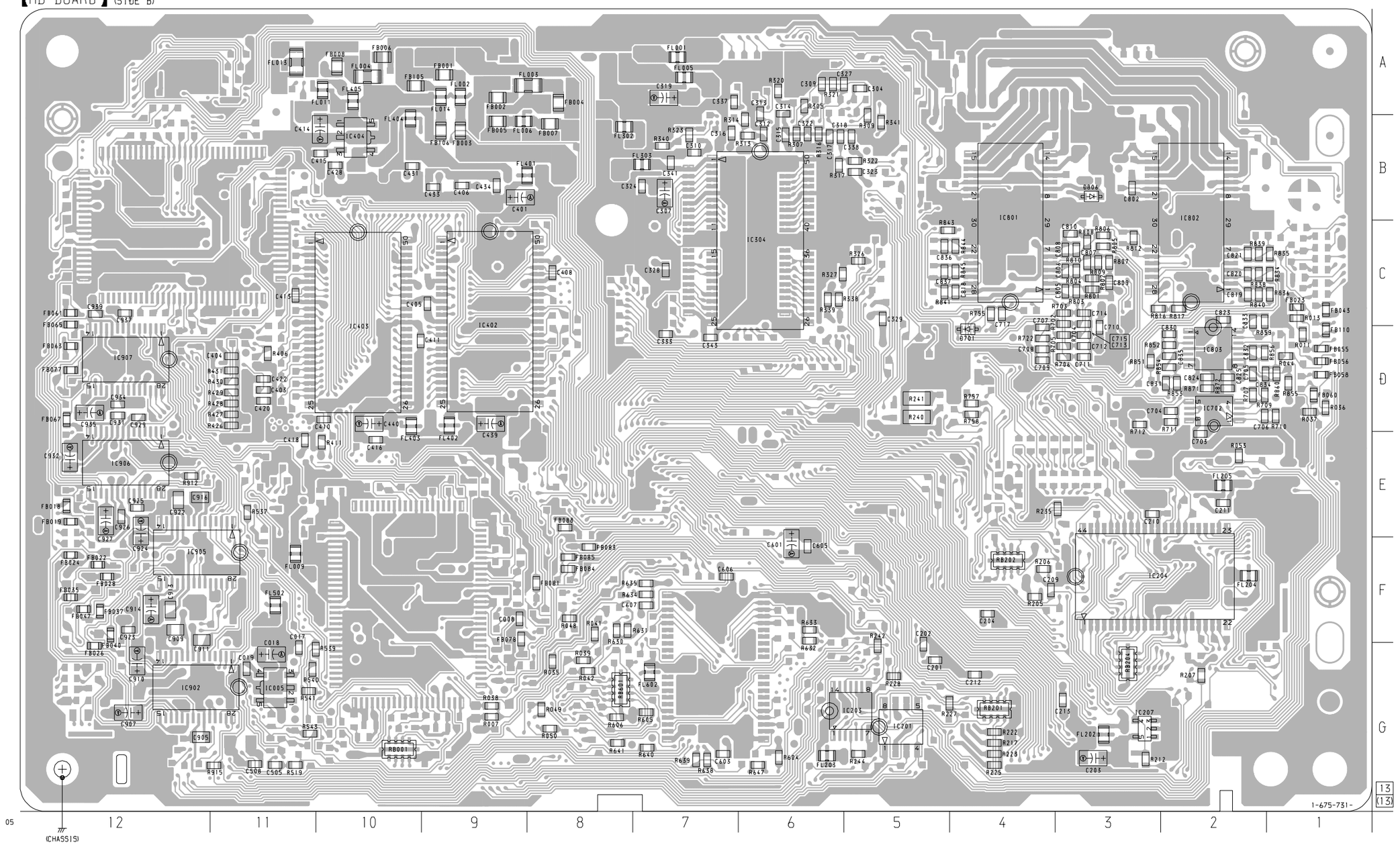
- **Semiconductor Location**

Ref. No.	Location
D801	B-3
D802	C-2
D803	C-2
D804	C-2
D805	B-4
D807	D-5
IC001	F-9
IC003	F-9
IC004	F-9
IC202	G-4
IC205	F-2
IC206	F-2
IC302	A-7
IC303	C-6
IC401	C-10
IC501	G-11
IC601	G-7
IC701	C-3
IC904	G-12
Q801	B-4



6-5. PRINTED WIRING BOARD – MB Board (Side B) – • See page 23 for Circuit Boards Location.

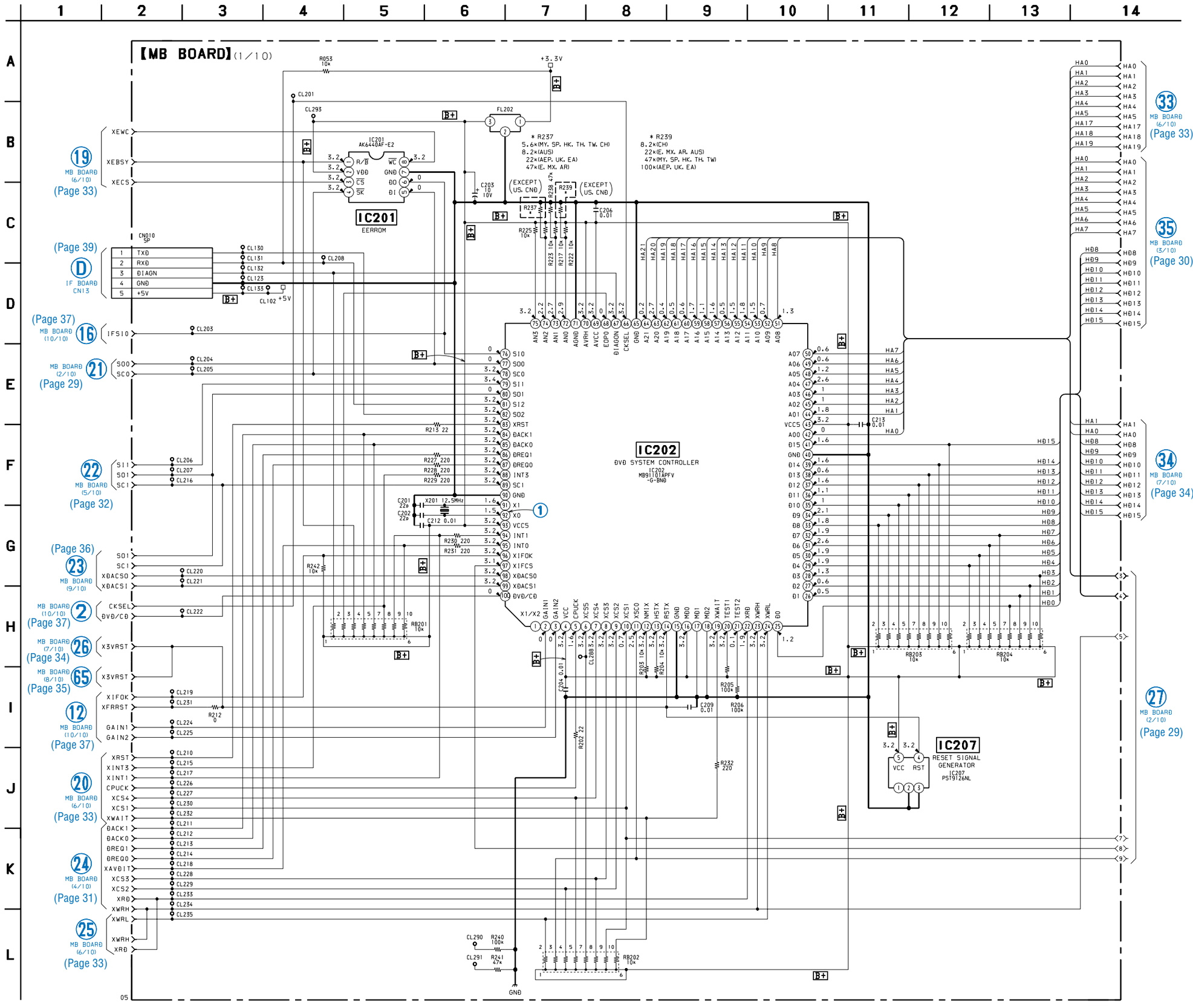
【MB BOARD】 (SIDE B)



- **Semiconductor Location**

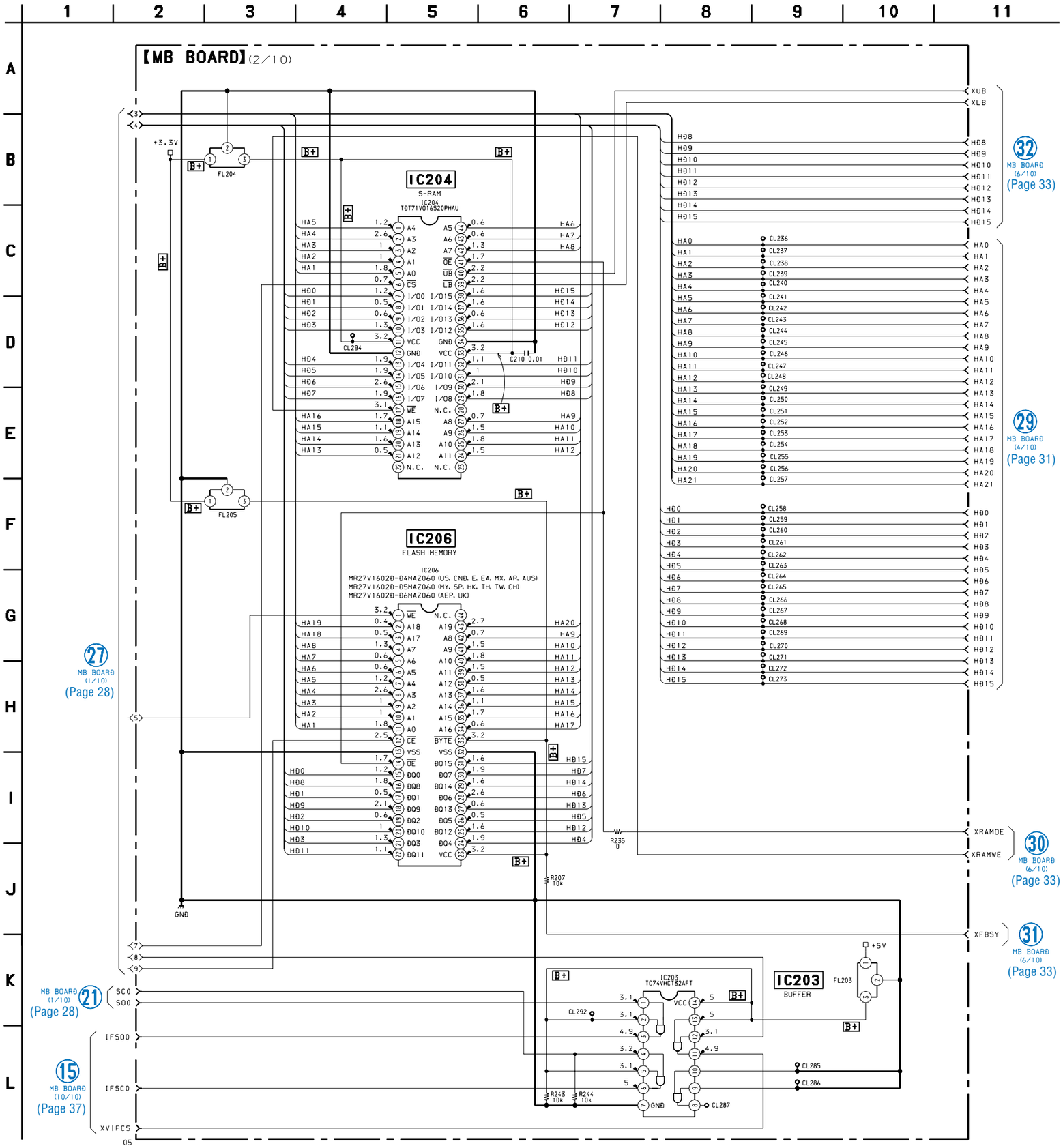
Ref. No.	Location
D701	D-4
D806	B-3
IC005	G-11
IC201	G-5
IC203	G-5
IC204	F-3
IC207	G-3
IC304	C-6
IC402	C-9
IC403	C-10
IC404	B-10
IC702	D-2
IC801	C-4
IC802	C-2
IC803	D-2
IC902	G-12
IC905	F-12
IC906	E-12
IC907	D-12

6-6. SCHEMATIC DIAGRAM – MB Board (1/10) – • See page 62 for Waveform.



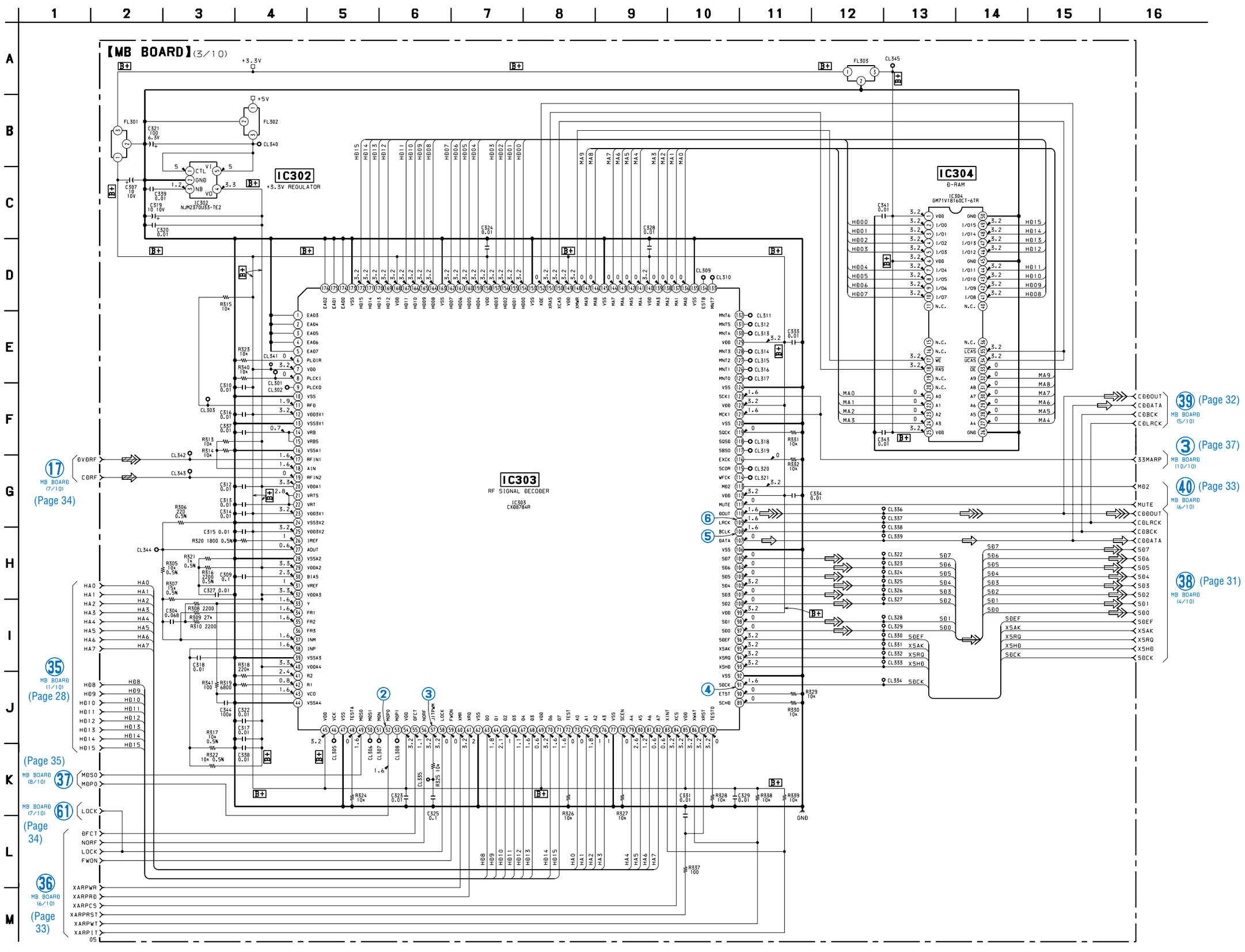
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : DVD STOP

6-7. SCHEMATIC DIAGRAM – MB Board (2/10) –

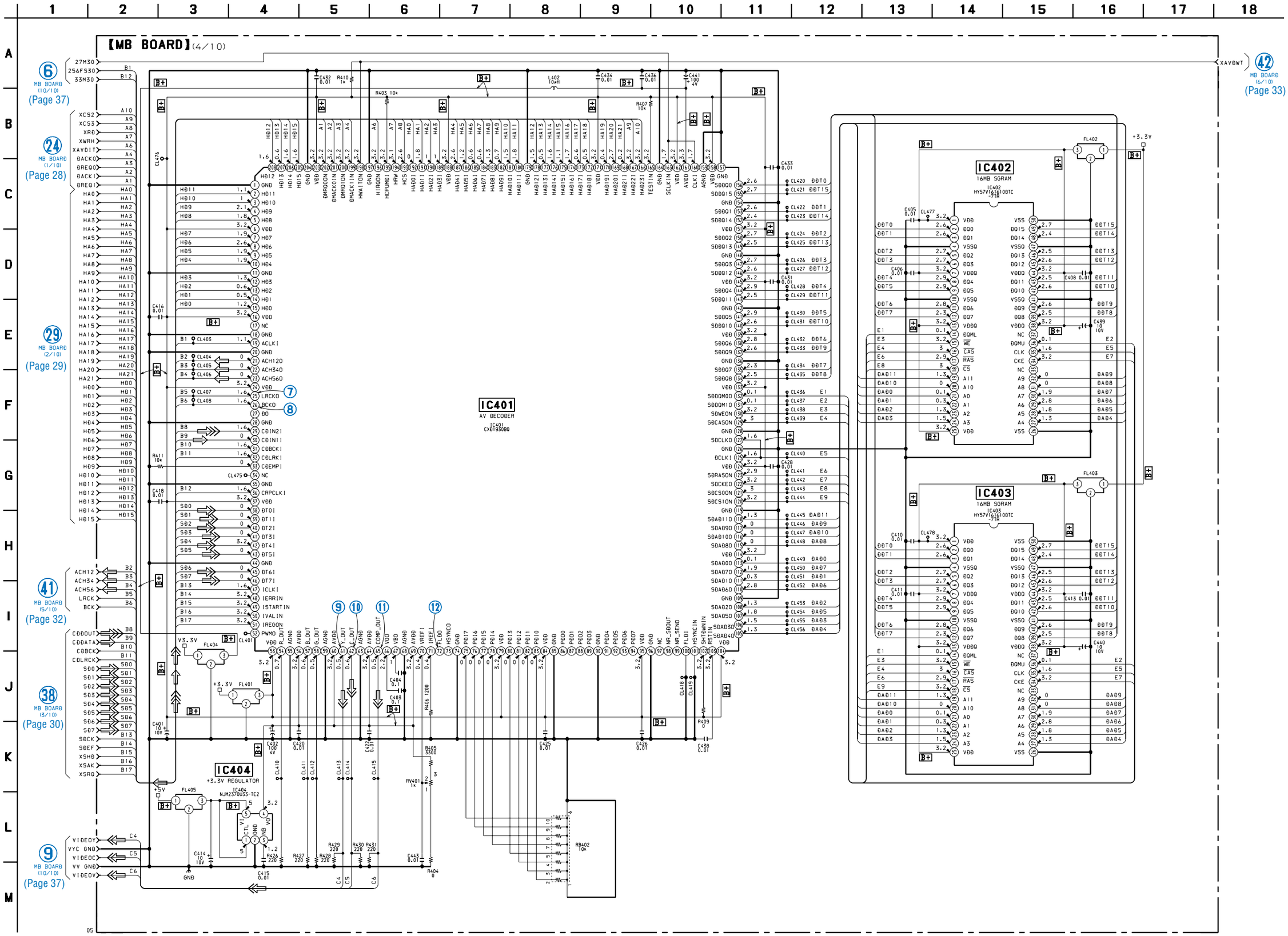


- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : DVD STOP

6-8. SCHEMATIC DIAGRAM – MB Board (3/10) – • See page 62 for Waveforms.



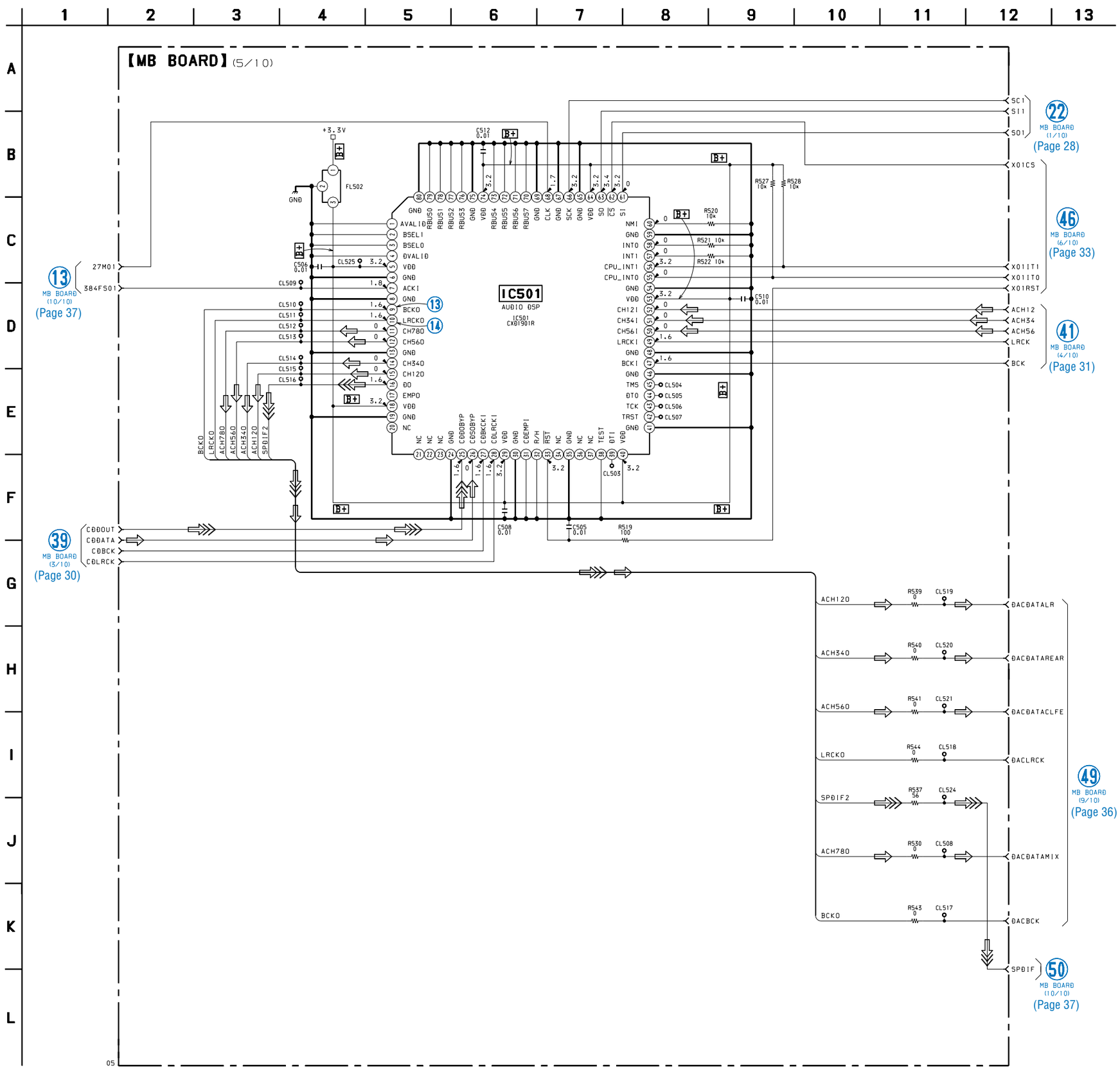
6-9. SCHEMATIC DIAGRAM – MB Board (4/10) – • See page 62 for Waveforms.



- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : DVD STOP

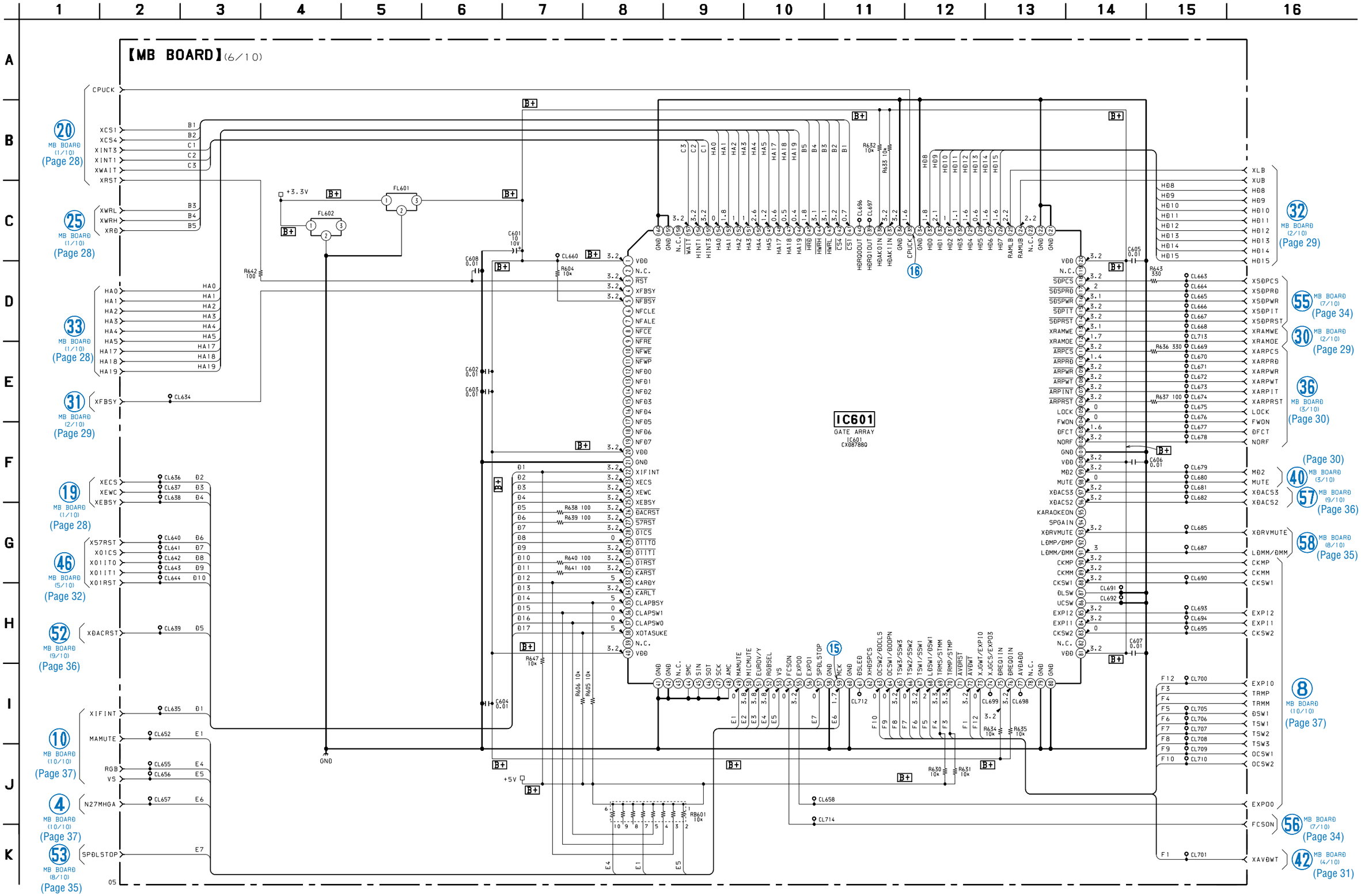
6-10. SCHEMATIC DIAGRAM – MB Board (5/10) –

• See page 62 for Waveforms.



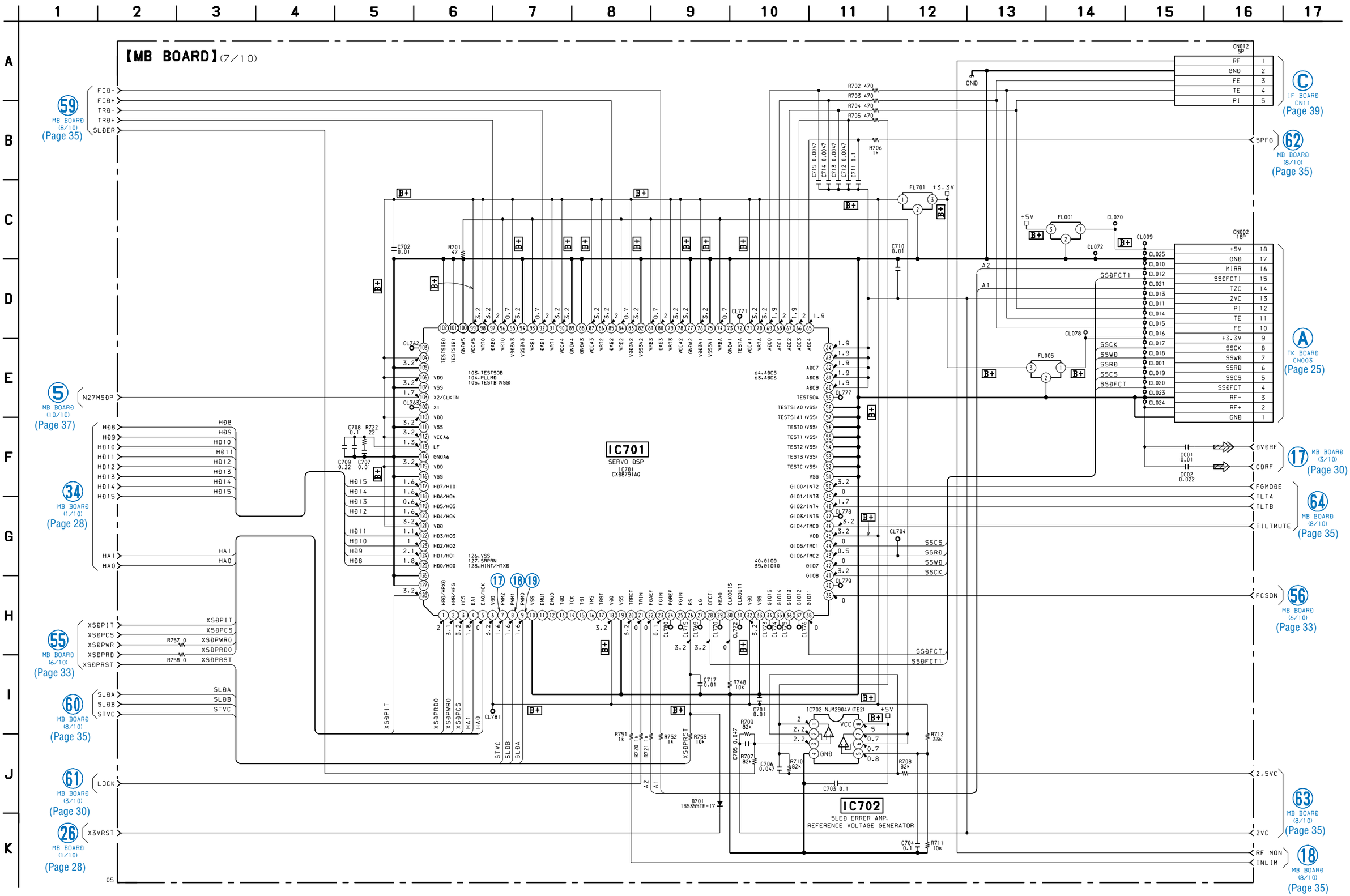
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : DVD STOP

6-11. SCHEMATIC DIAGRAM – MB Board (6/10) – • See page 62 for Waveforms.



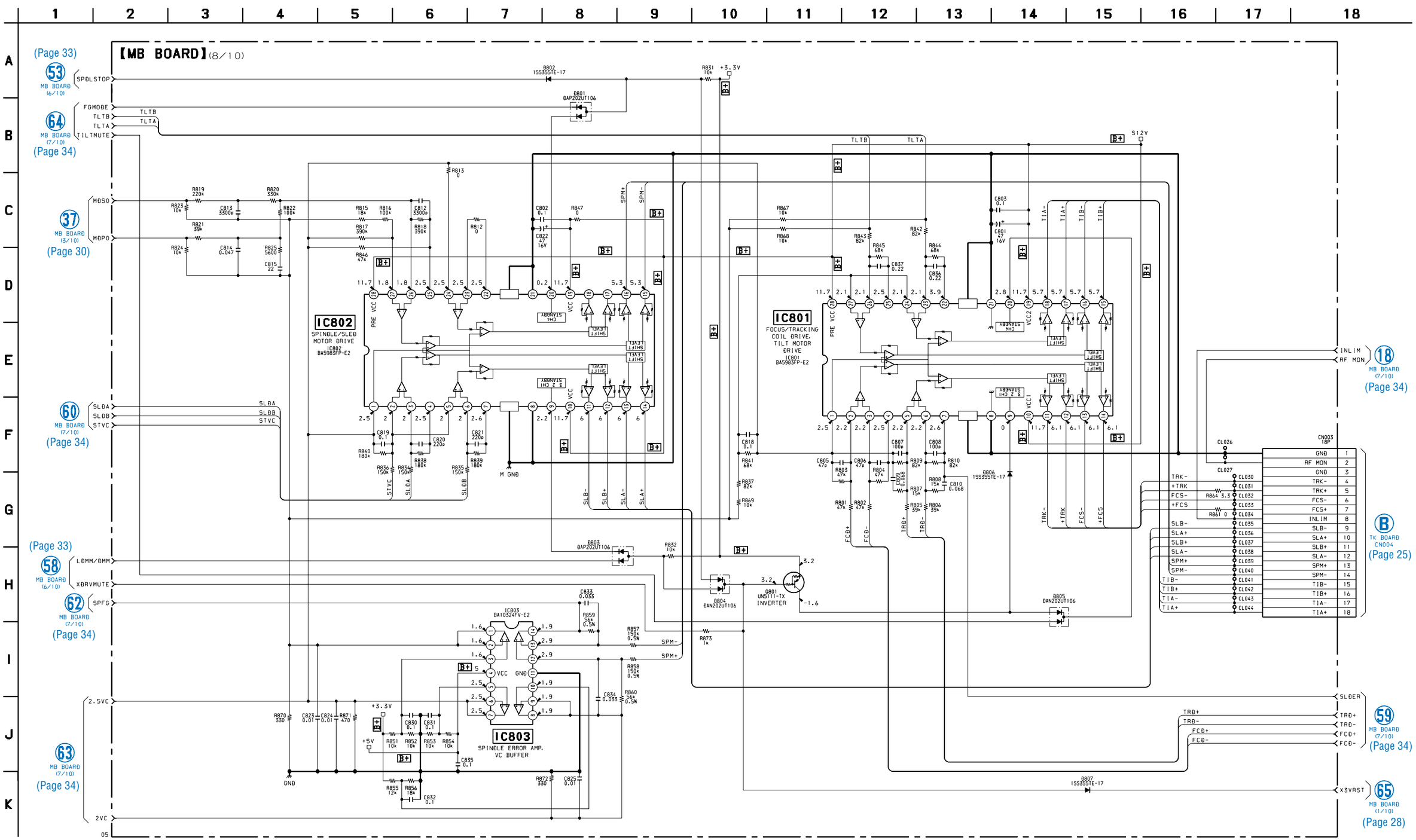
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : DVD STOP

6-12. SCHEMATIC DIAGRAM – MB Board (7/10) – • See page 62 for Waveforms.



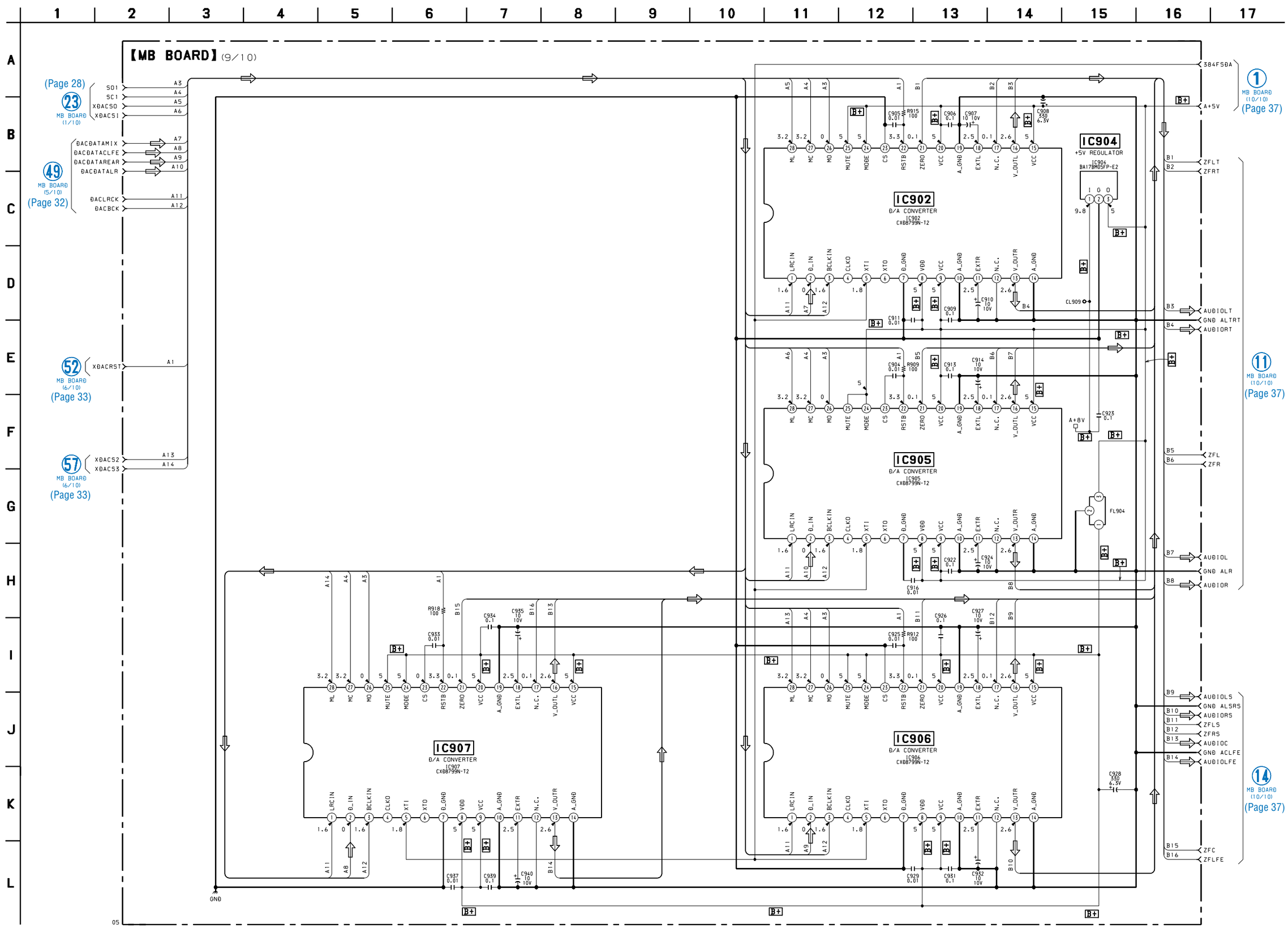
• Voltages and waveforms are dc with respect to ground under no-signal conditions.
no mark : DVD STOP

6-13. SCHEMATIC DIAGRAM – MB Board (8/10) –



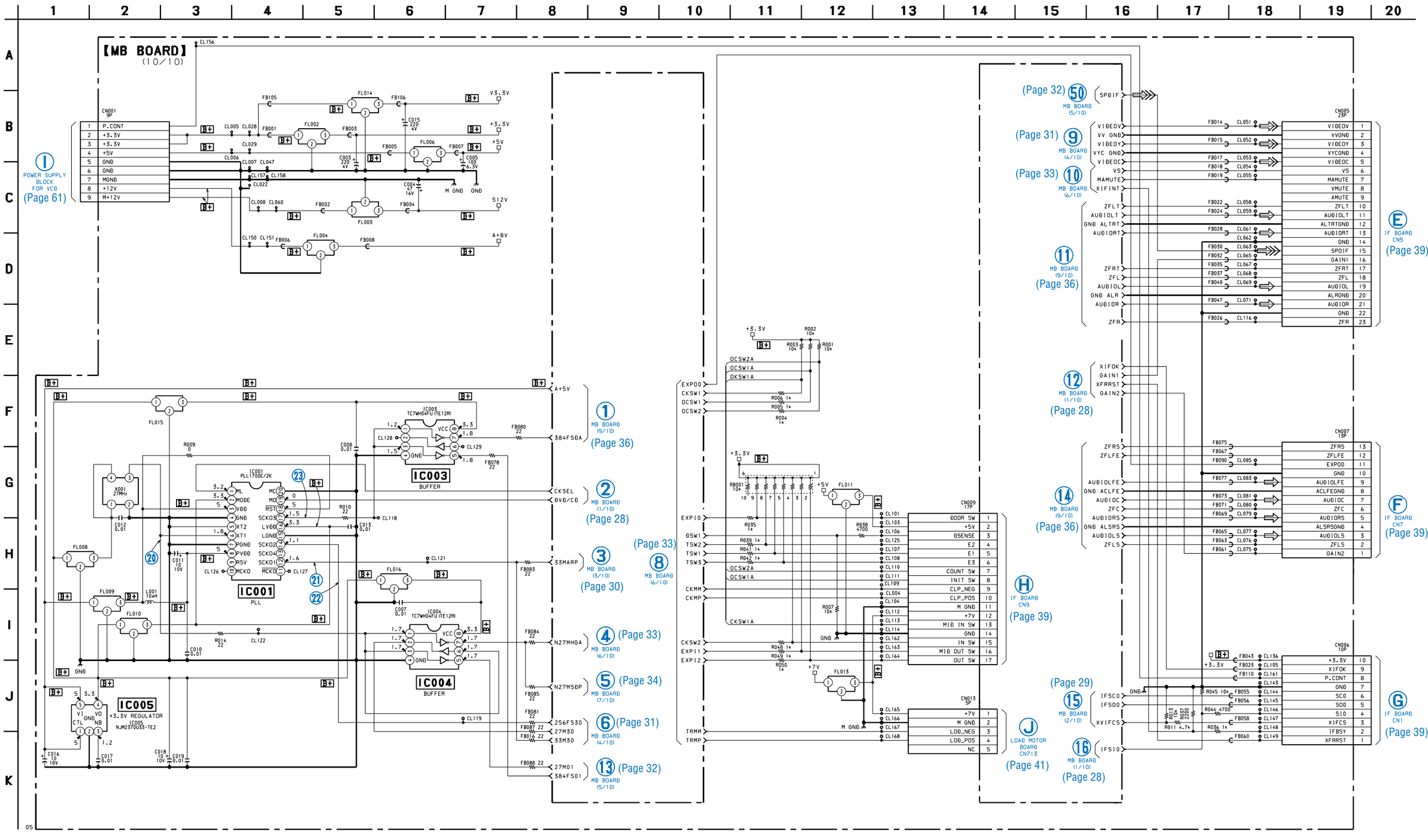
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : DVD STOP

6-14. SCHEMATIC DIAGRAM – MB Board (9/10) –



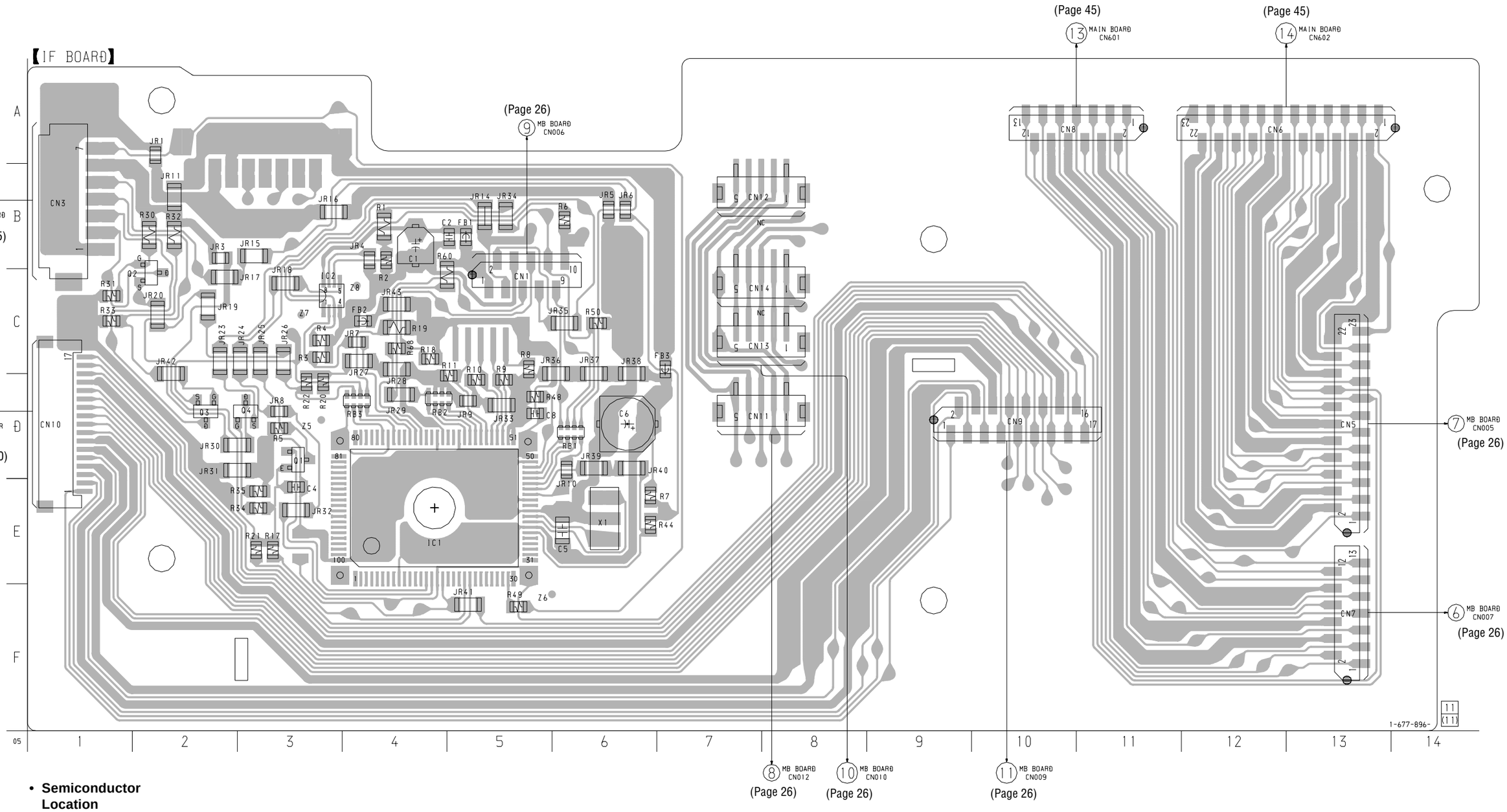
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : DVD STOP

6-15. SCHEMATIC DIAGRAM – MB Board (10/10) – • See page 62 for Waveforms.



- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : DVD STOP

6-16. PRINTED WIRING BOARD – IF Board – • See page 23 for Circuit Boards Location.



- **Semiconductor Location**

Ref. No.	Location
IC1	E-4
IC2	C-3
Q1	D-3
Q2	C-2
Q3	D-2
Q4	D-3

6-17. SCHEMATIC DIAGRAM – IF Board – • See page 62 for Waveform.

【IF BOARD】

IC1 IF CONTROLLER IC1 μPD78421

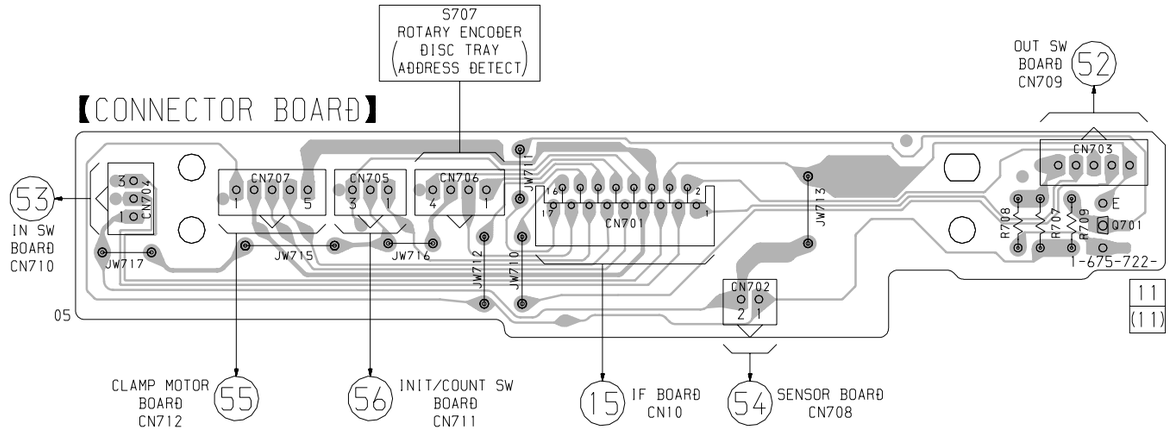
IC2 LEVEL SHIFT IC2 TC7WH125FU

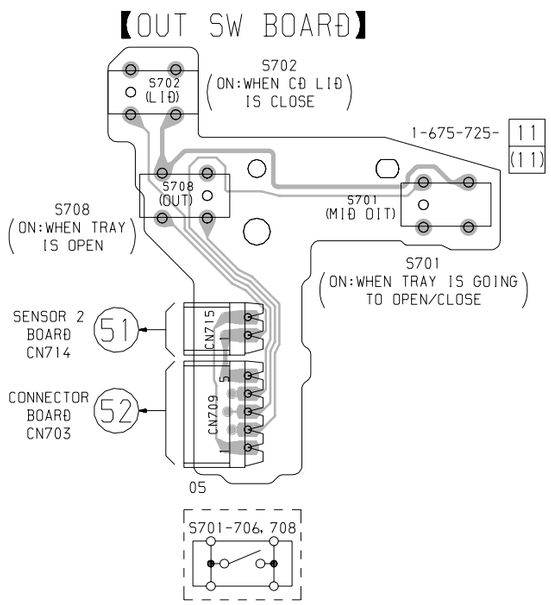
Q1 DTA124EKA INVERTER

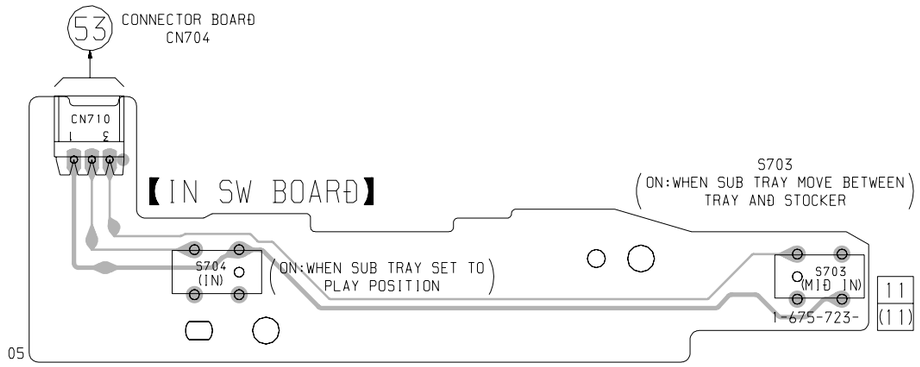
Q2-4 LEVEL SHIFT Q2 2SK1828 / Q3 2SK1828 / Q4 2SK1828

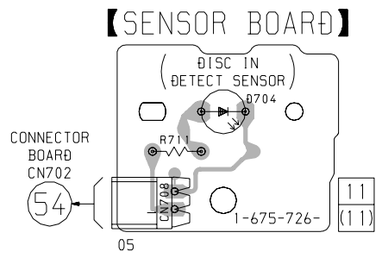
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : DVD STOP

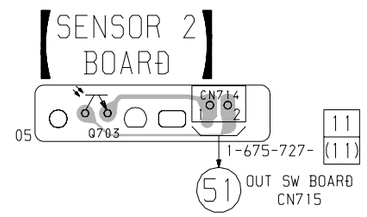
6-18. PRINTED WIRING BOARDS – CDM Section – • See page 23 for Circuit Boards Location.

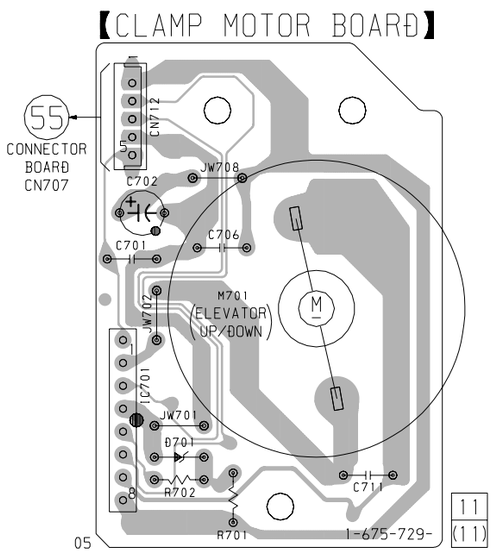


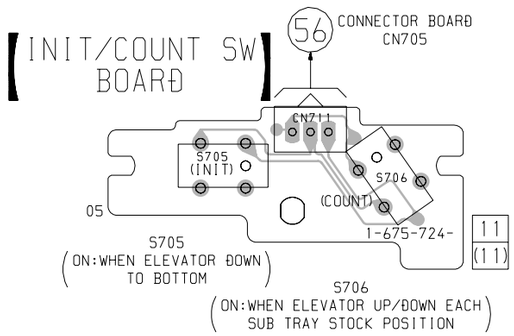


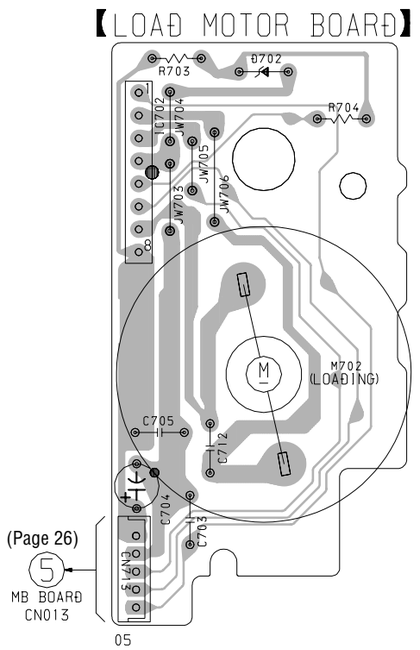




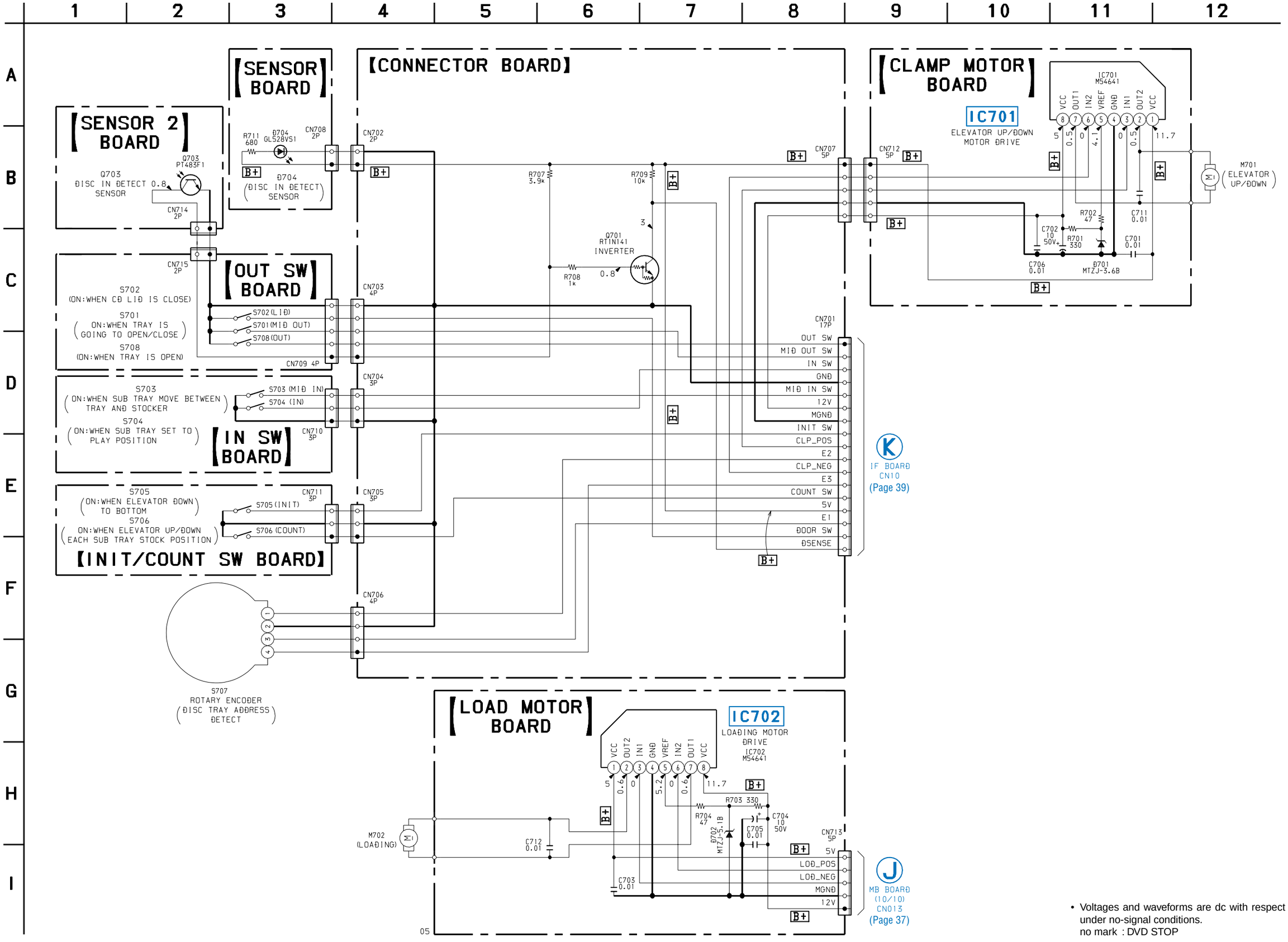






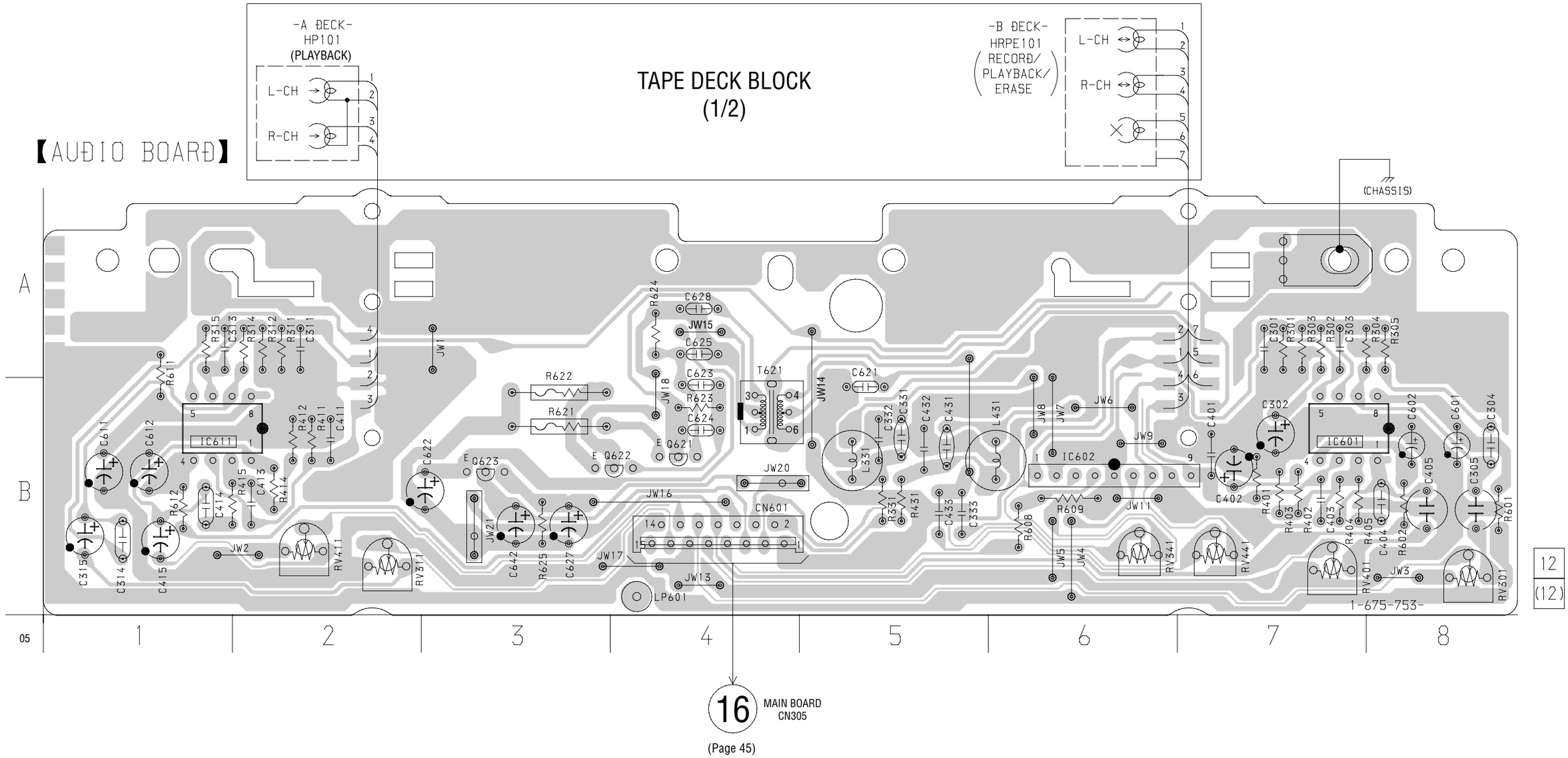


6-19. SCHEMATIC DIAGRAM – CDM Section – • See page 62 for IC Block Diagram.



• Voltages and waveforms are dc with respect to ground under no-signal conditions.
no mark : DVD STOP

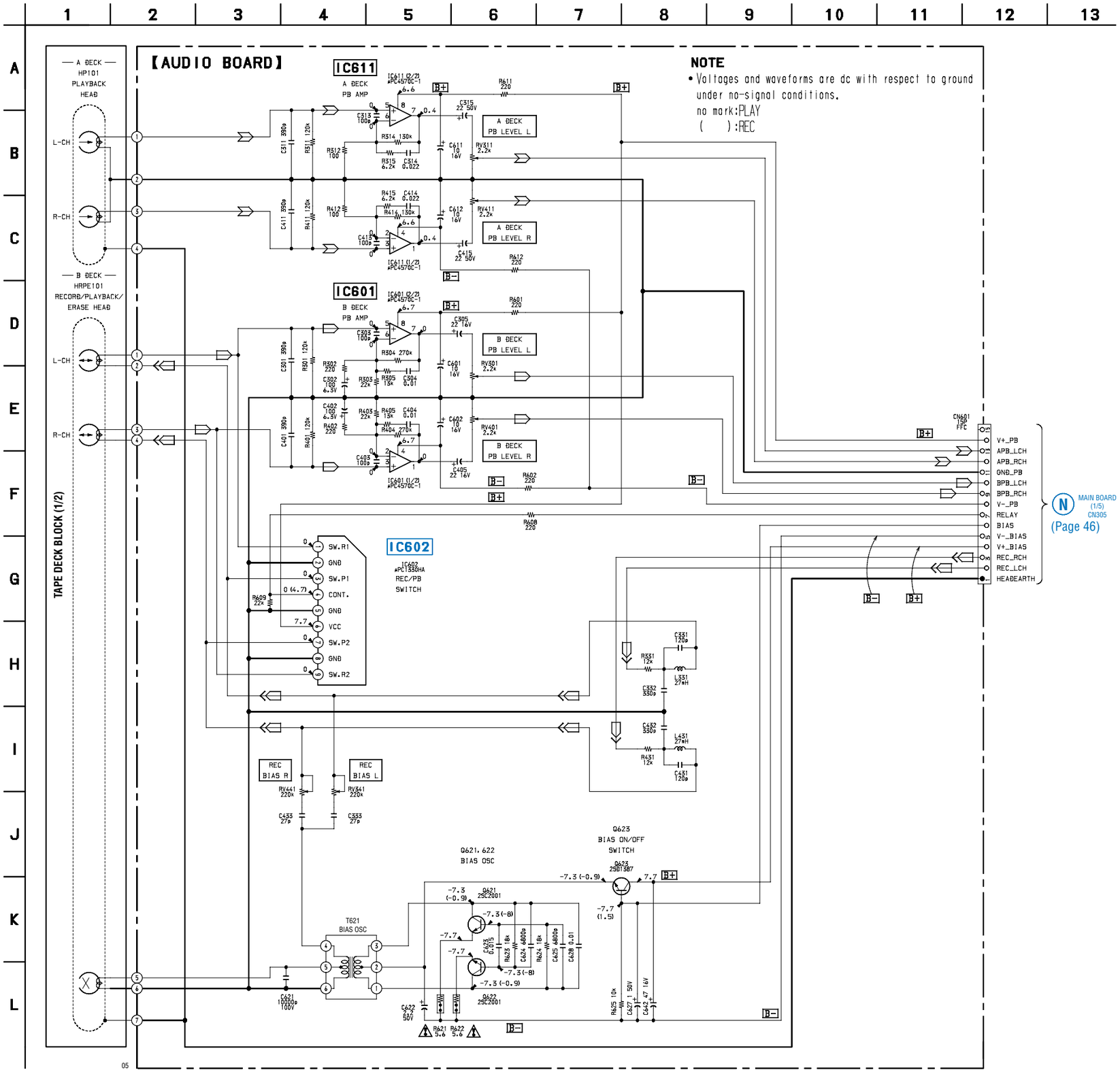
6-20. PRINTED WIRING BOARD – AUDIO Board – **• See page 23 for Circuit Boards Location.**



- **Semiconductor Location**

Ref. No.	Location
IC601	B-7
IC602	B-6
IC611	B-1
Q621	B-4
Q622	B-4
Q623	B-3

6-21. SCHEMATIC DIAGRAM – AUDIO Board – • See page 62 for IC Block Diagram.

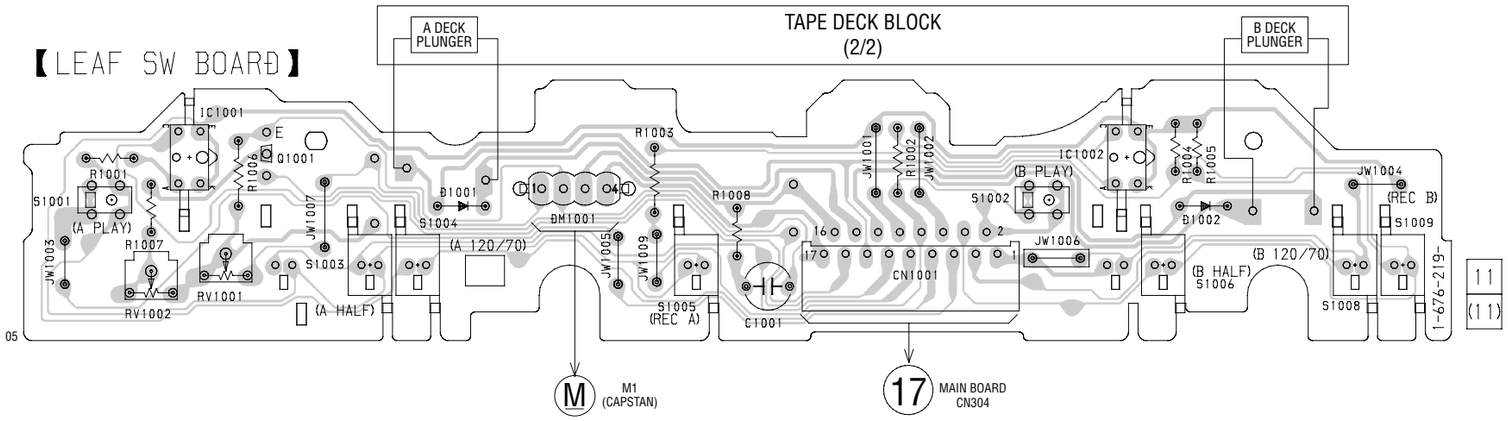


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

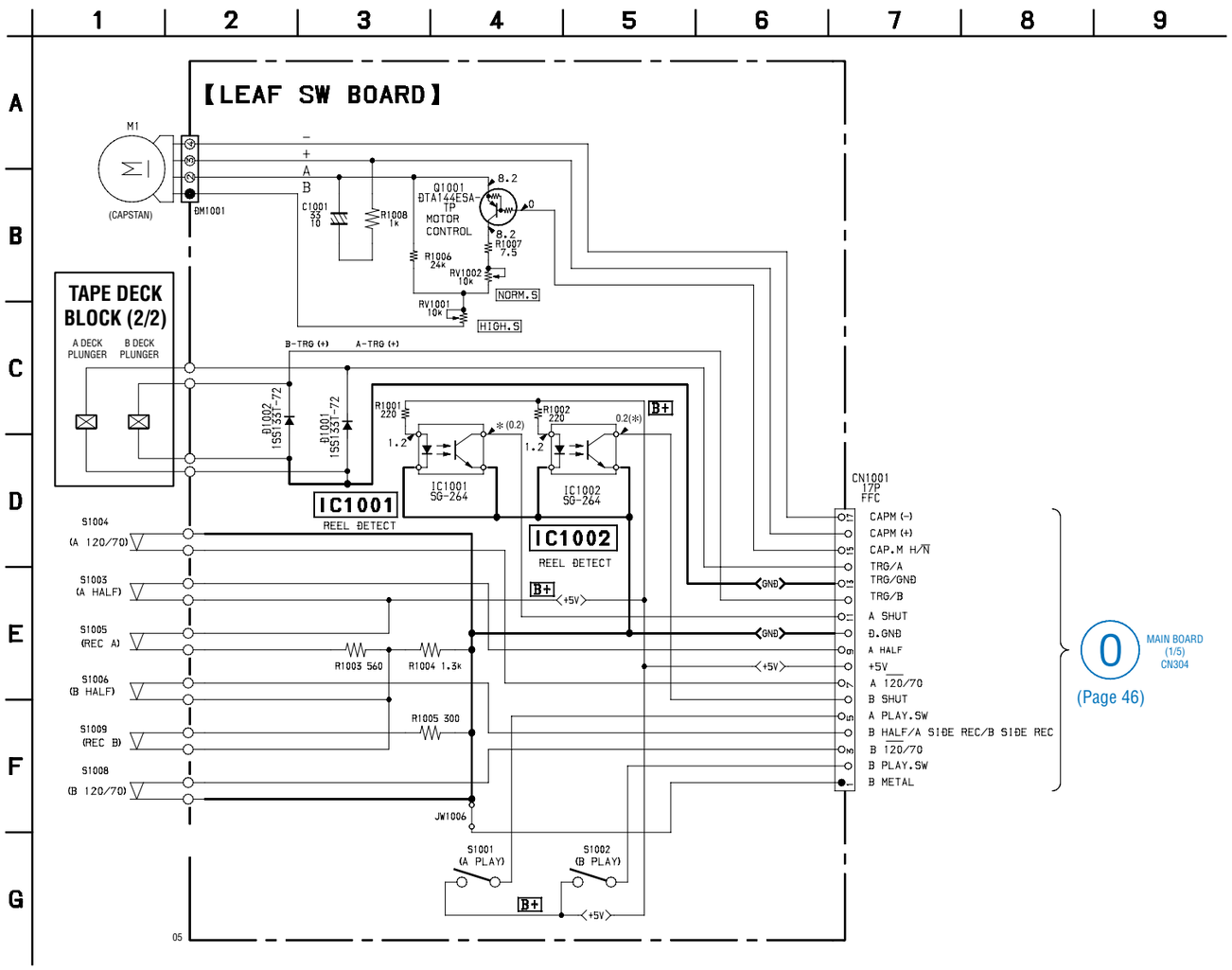
以阴影和⚠标志来识别的零部件在安全方面具有关键性。因此只能以规定号码的零部件来更换。

6-22. PRINTED WIRING BOARD – LEAF SW Board –

• See page 23 for Circuit Boards Location.



6-23. SCHEMATIC DIAGRAM – LEAF SW Board –



• Voltages and waveforms are dc with respect to ground under no-signal conditions.
no mark : TAPE A PLAY
( ) : TAPE B PLAY

• **Semiconductor Location**
– MAIN Board –

Ref. No.	Location	Ref. No.	Location
D101	C-9	Q101	C-9
D102	C-10	Q102	C-8
D181	H-9	Q130	E-12
D182	H-8	Q151	B-9
D183	G-10	Q152	C-8
D184	H-9	Q181	H-9
D201	F-7	Q182	H-9
D501	E-5	Q183	H-9
D502	F-3	Q184	H-9
D503	F-3	Q201	C-7
D504	F-2	Q202	C-7
D505	F-2	Q203	D-7
D506	F-3	Q391	D-1
D507	F-2	Q392	C-1
D508	F-2	Q393	D-1
D509	F-2	Q394	C-1
D510	F-2	Q395	C-2
D512	F-2	Q396	D-2
D601	E-10	Q397	C-1
D602	E-10	Q501	E-5
D603	E-10	Q601	E-11
D604	E-10	Q602	D-11
D605	E-10	Q603	E-11
D606	F-10	Q604	E-11
D607	F-10	Q605	E-11
D608	F-10	Q606	F-11
D691	F-12	Q607	F-11
D692	F-12	Q608	F-11
D693	G-12	Q609	H-9
D912	G-3	Q610	G-9
D913	F-3	Q611	F-10
D914	G-3	Q612	G-9
D951	H-5	Q613	G-9
D952	H-4	Q614	F-9
		Q615	E-10
IC101	B-10	Q616	F-10
IC201	F-8	Q617	E-10
IC203	D-7	Q618	F-10
IC204	D-7	Q691	G-12
IC301	B-4	Q692	G-12
IC401	D-4	Q901	H-4
IC501	F-3	Q902	H-4
IC551	I-12	Q903	H-5
IC601	H-12	Q904	H-5
IC602	H-11	Q905	H-4
IC603	G-11	Q906	H-3
IC604	G-10	Q910	G-3
IC691	F-12	Q911	G-3
IC901	H-4	Q912	G-4
IC902	H-5	Q913	F-3
IC903	G-3	Q941	I-7
IC905	H-2	Q942	I-7
IC906	I-3		
IC907	G-2		

6-24. PRINTED WIRING BOARD – MAIN Board – • See page 23 for Circuit Boards Location.

【MAIN BOARD】

(Page 54)
19 SURR AMP BOARD CN1001

18 MIC BOARD ND1601 (Page 51)

TUNER PACK
SUPPLIED WITH
THE ASSEMBLED BLOCK

(Page 38)
12 IF BOARD CN3

16 AUDIO BOARD CN601 (Page 42)

20 PANEL BOARD CN701 (Page 56)

(EA, MY, SP, HK, TH, TW, CH)

17 LEAF SW BOARD CN1001 (Page 44)

(Page 60)
21 SUB TRANS BOARD CN903 (US, CND, AEP, UK)

VIDEO (AUDIO) IN
J101
IN
MD
OUT

J102 WOOFER OUT

J691 S VIDEO OUT

J692 VIDEO OUT

FAN101 (FAN)

IC551 CD DIGITAL OUT OPTICAL

1-677-192-12

EP901 (CHASSIS)

(Page 52) 22 FRONT AMP BOARD CN803

23 FRONT AMP BOARD CN804 (Page 52)

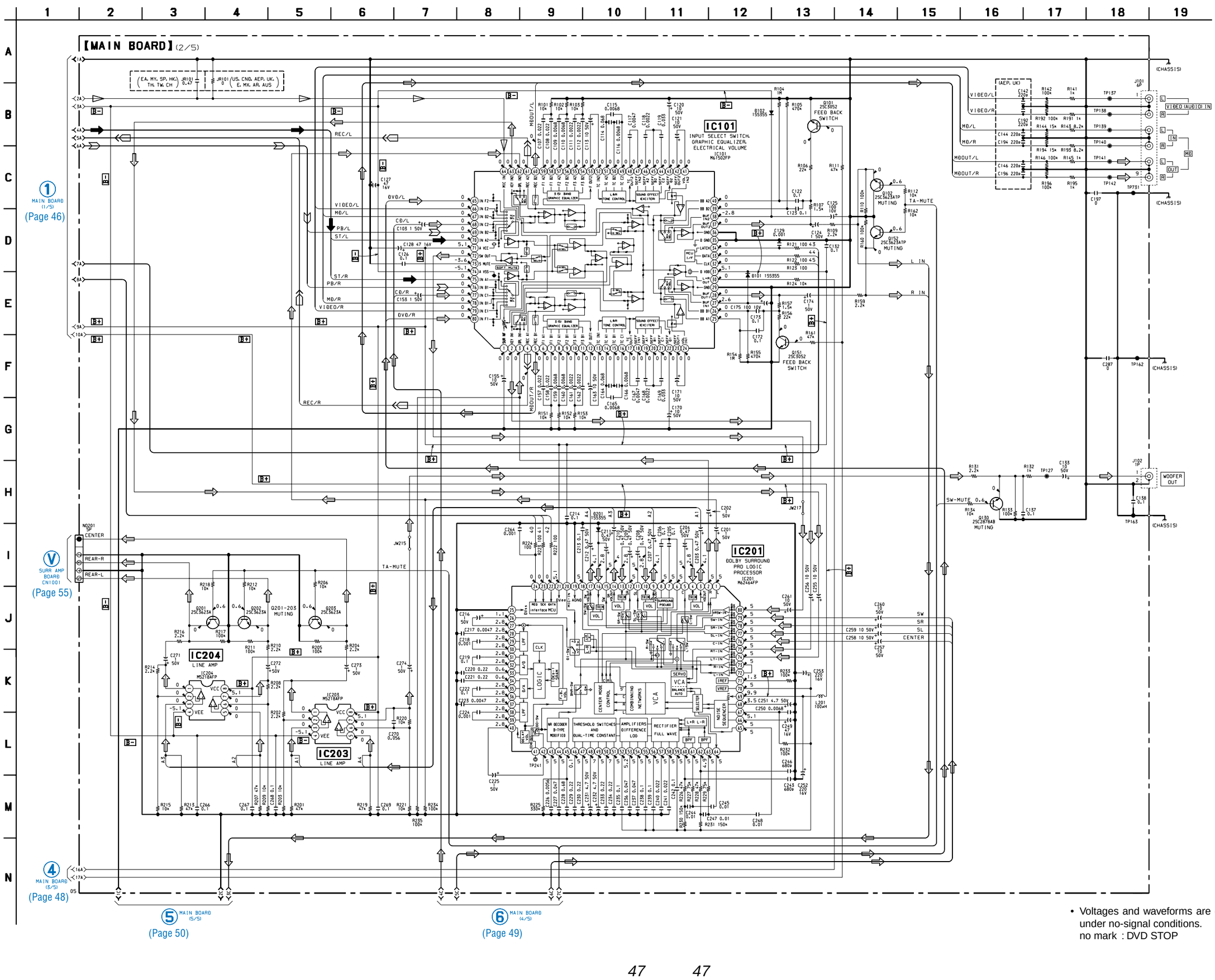
13 IF BOARD CN8 (Page 38)

14 IF BOARD CN6 (Page 38)

6-25. SCHEMATIC DIAGRAM – MAIN Board (1/5) – • See page 62 for Waveforms.

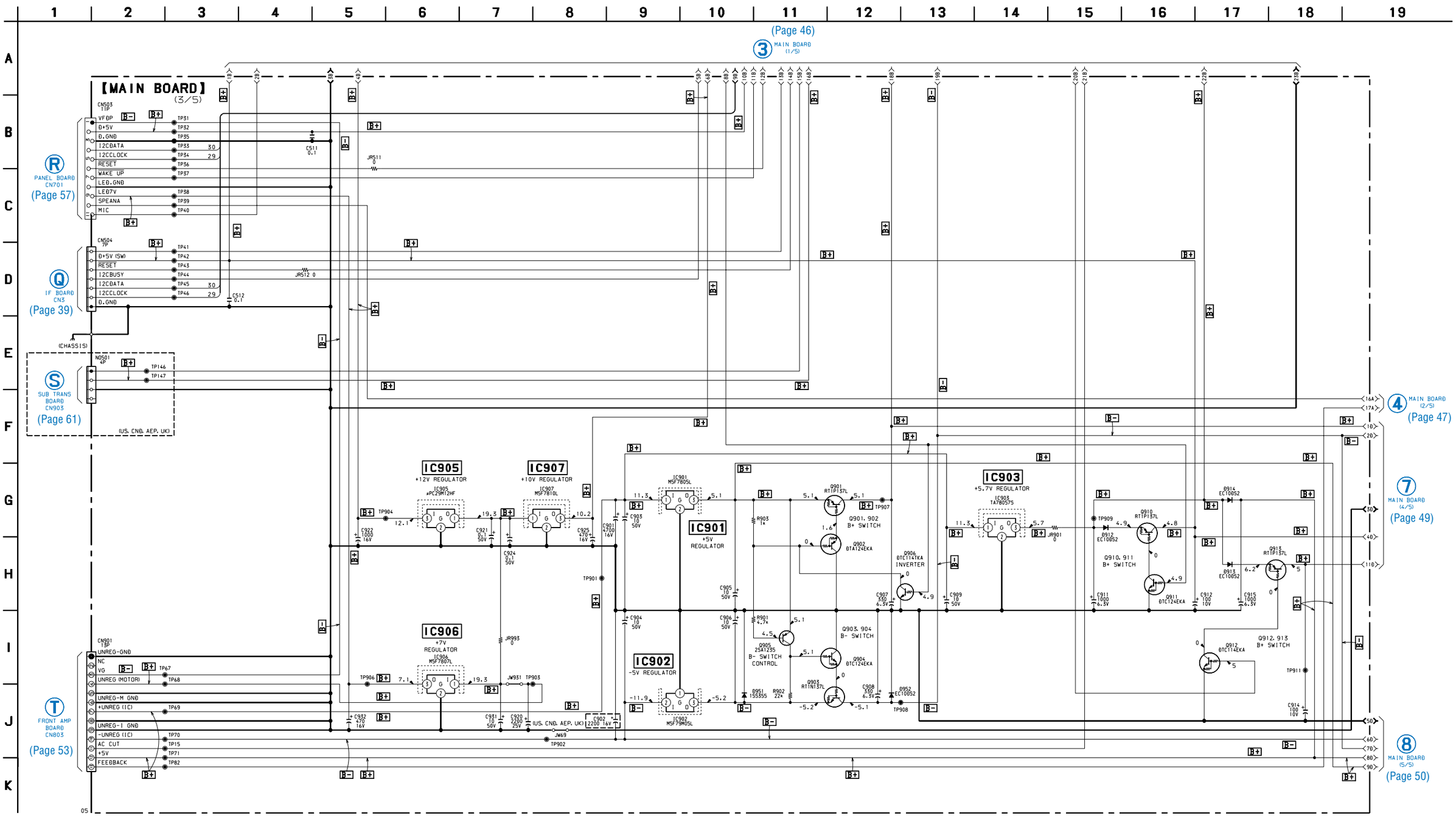
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : DVD STOP
  [ ] : TAPE A STOP
  * : Impossible to measure

6-26. SCHEMATIC DIAGRAM – MAIN Board (2/5) –



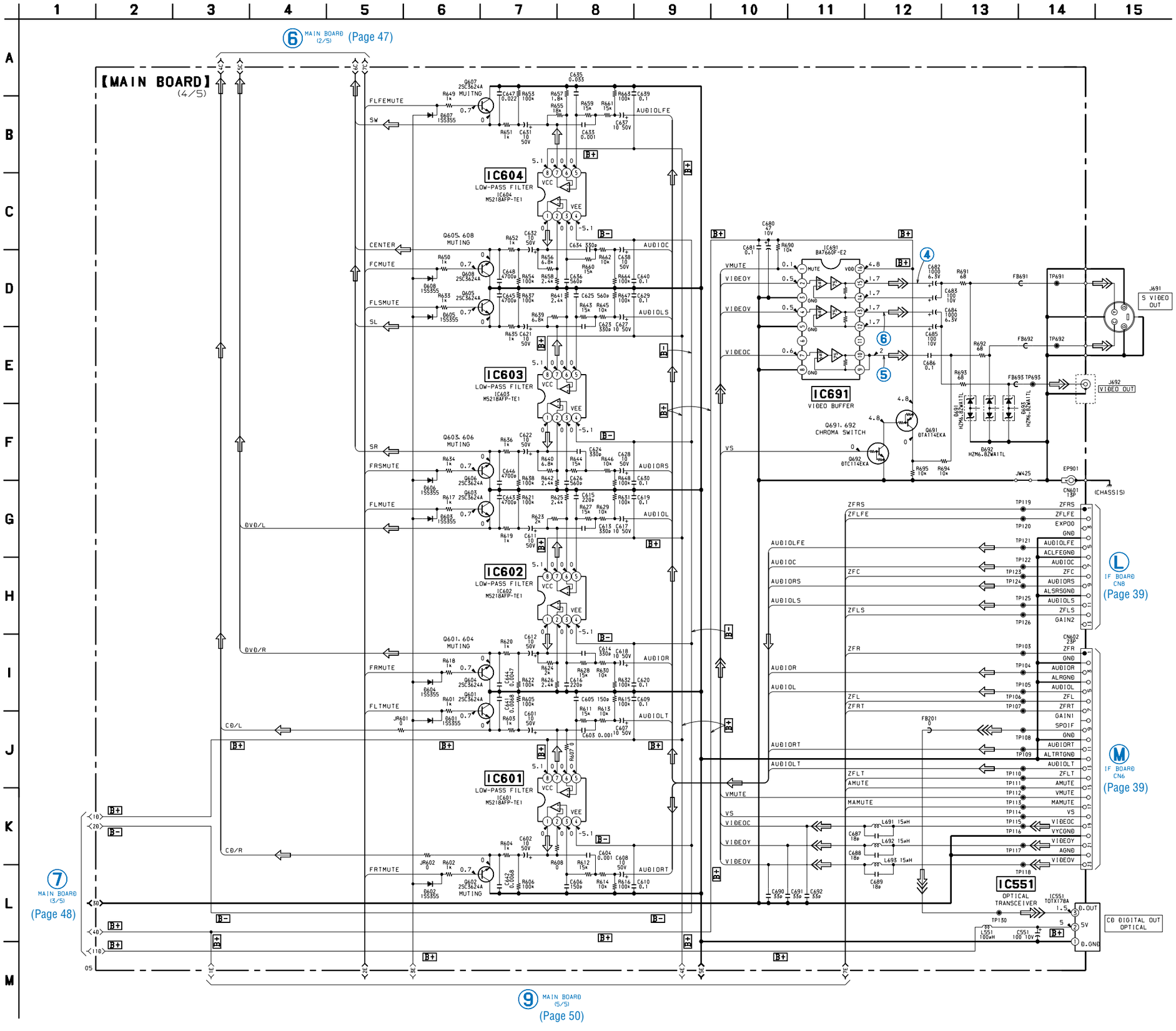
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : DVD STOP

6-27. SCHEMATIC DIAGRAM – MAIN Board (3/5) –


【MAIN BOARD】
(3/5)
(Page 46)
3 MAIN BOARD (1/5)
R PANEL BOARD CN701 (Page 57)
Q IF BOARD CN3 (Page 39)
S SUB TRANS BOARD CN903 (Page 61)
T FRONT AMP BOARD CN803 (Page 53)
4 MAIN BOARD (2/5) (Page 47)
7 MAIN BOARD (4/5) (Page 49)
8 MAIN BOARD (5/5) (Page 50)
IC905 +12V REGULATOR
IC907 +10V REGULATOR
IC901 +5V REGULATOR
IC902 -5V REGULATOR
IC903 +5.7V REGULATOR
IC906 +7V REGULATOR
Q901, 902 B+ SWITCH
Q903, 904 B- SWITCH
Q905 2SA1235 B- SWITCH CONTROL
Q906 DTC114EKA INVERTER
Q910, 911 B+ SWITCH
Q912, 913 B+ SWITCH
(CHASSIS)
(US, CND, AEP, UK)

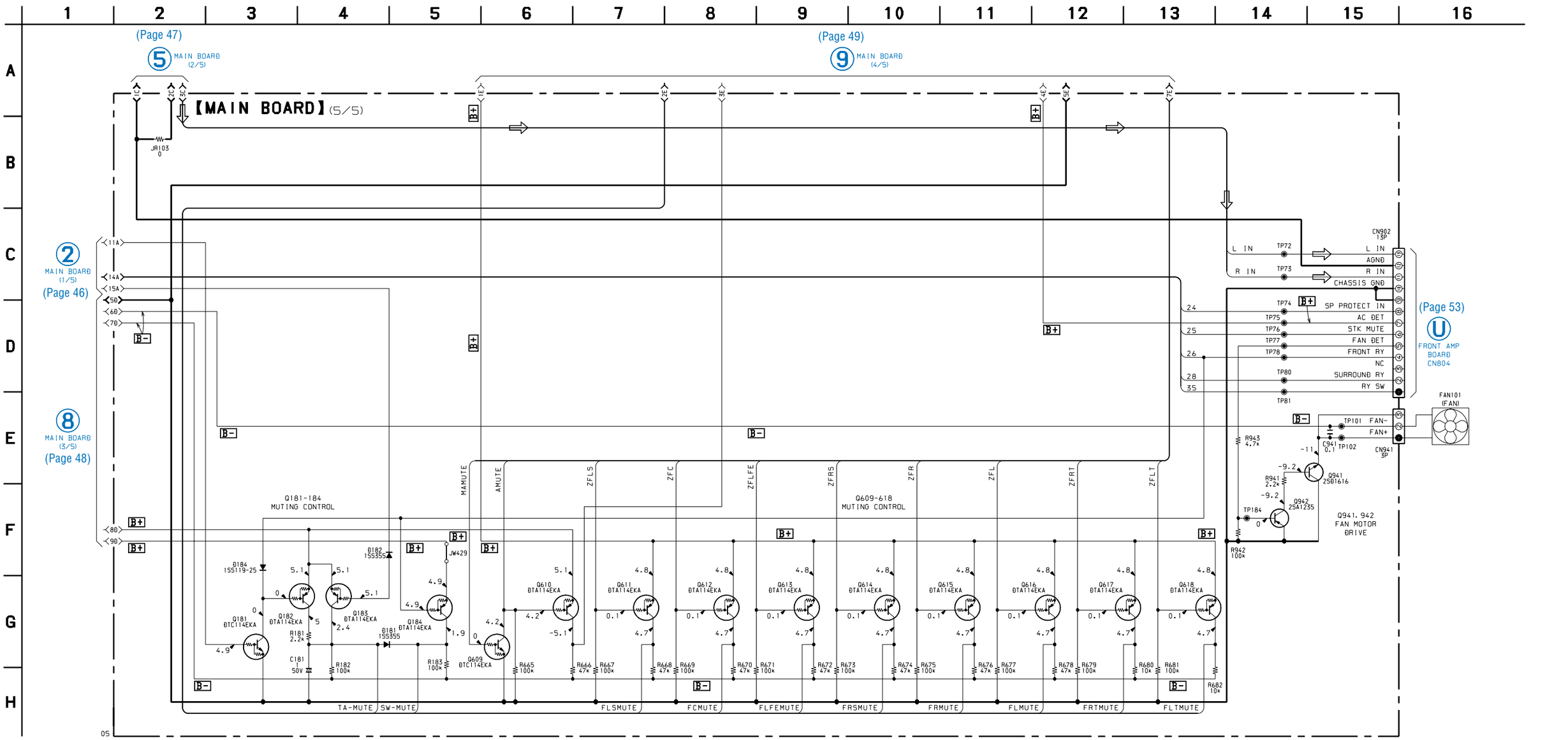
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : DVD STOP

6-28. SCHEMATIC DIAGRAM – MAIN Board (4/5) – • See page 62 for Waveforms.



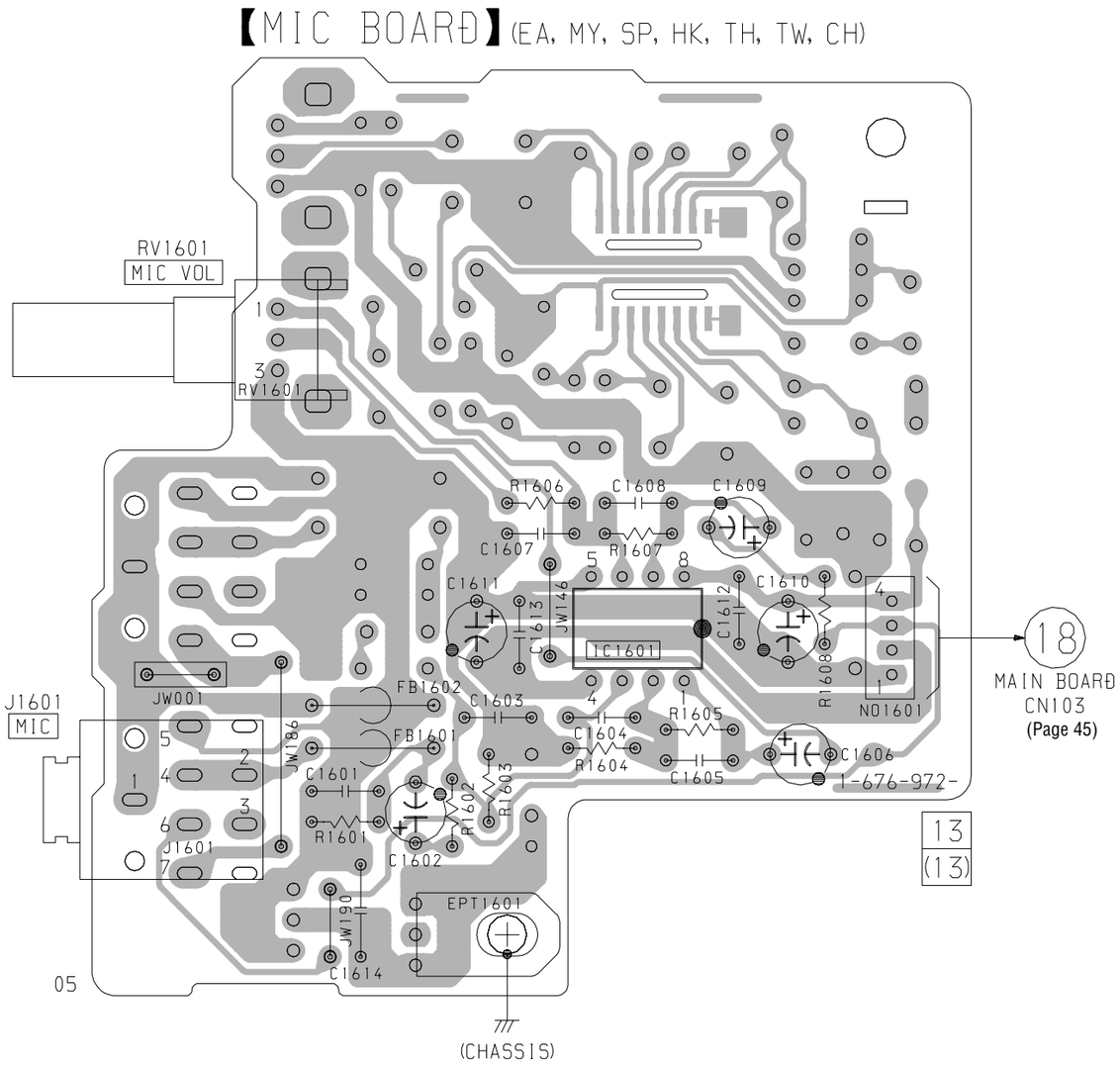
• Voltages and waveforms are dc with respect to ground under no-signal conditions.
no mark : DVD STOP

6-29. SCHEMATIC DIAGRAM – MAIN Board (5/5) –

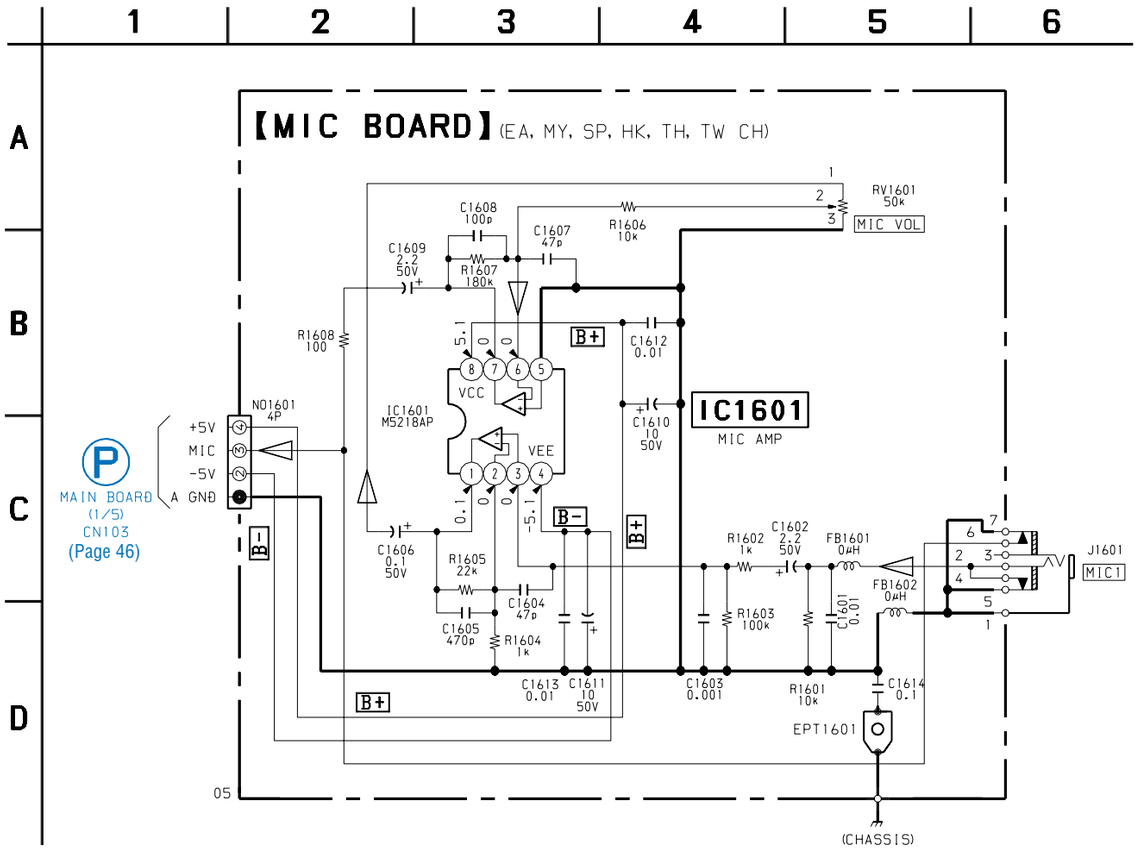


- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : DVD STOP

6-30. PRINTED WIRING BOARD – MIC Board – • See page 23 for Circuit Boards Location.



6-31. SCHEMATIC DIAGRAM – MIC Board –

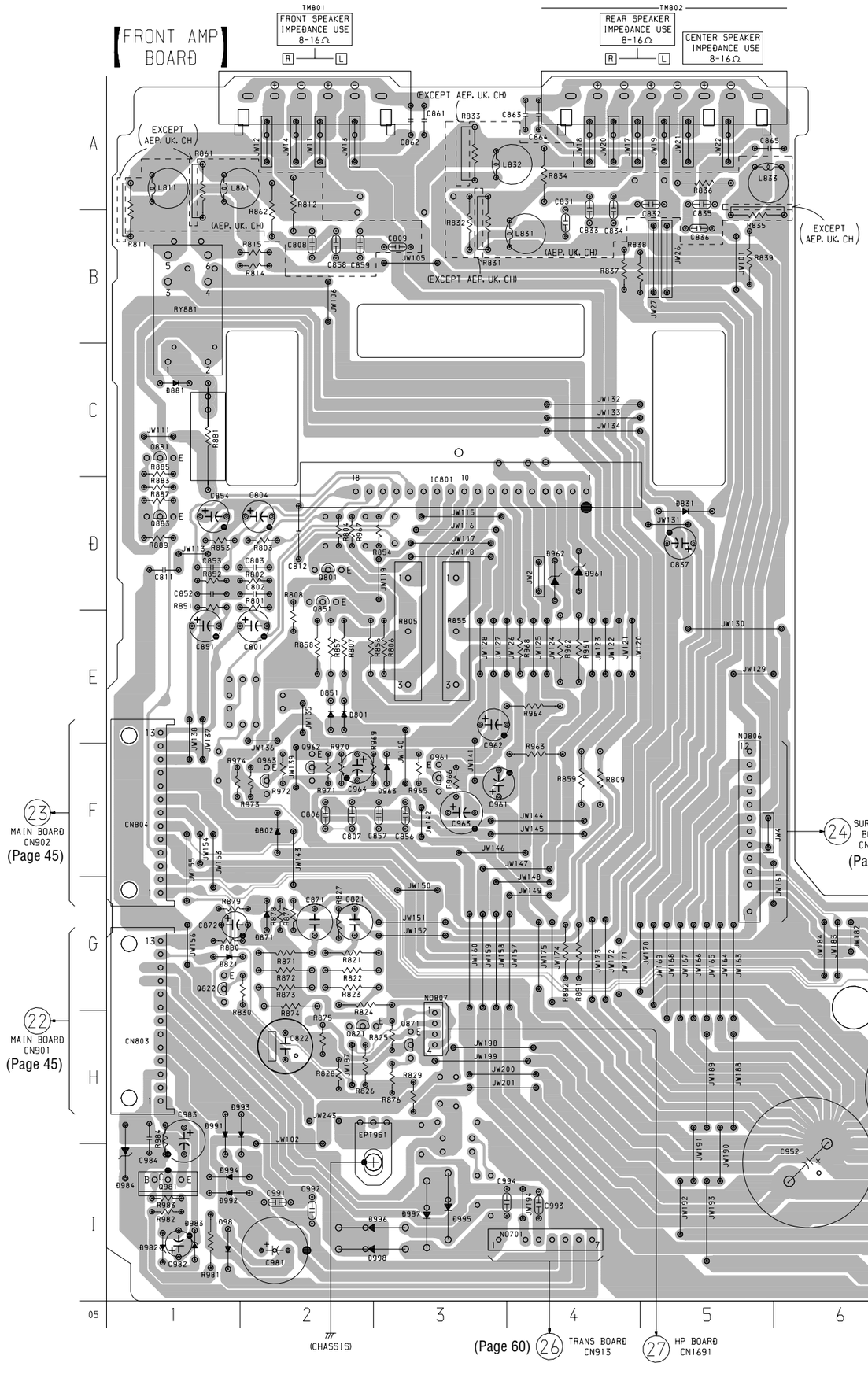


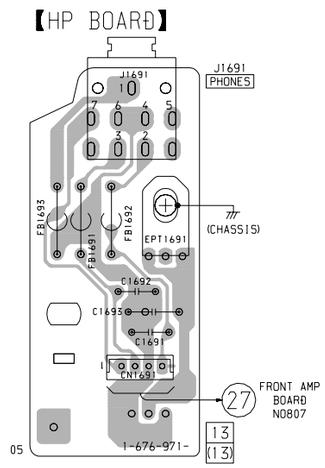
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM

6-32. PRINTED WIRING BOARDS – FRONT AMP/HP Boards – • See page 23 for Circuit Boards Location.

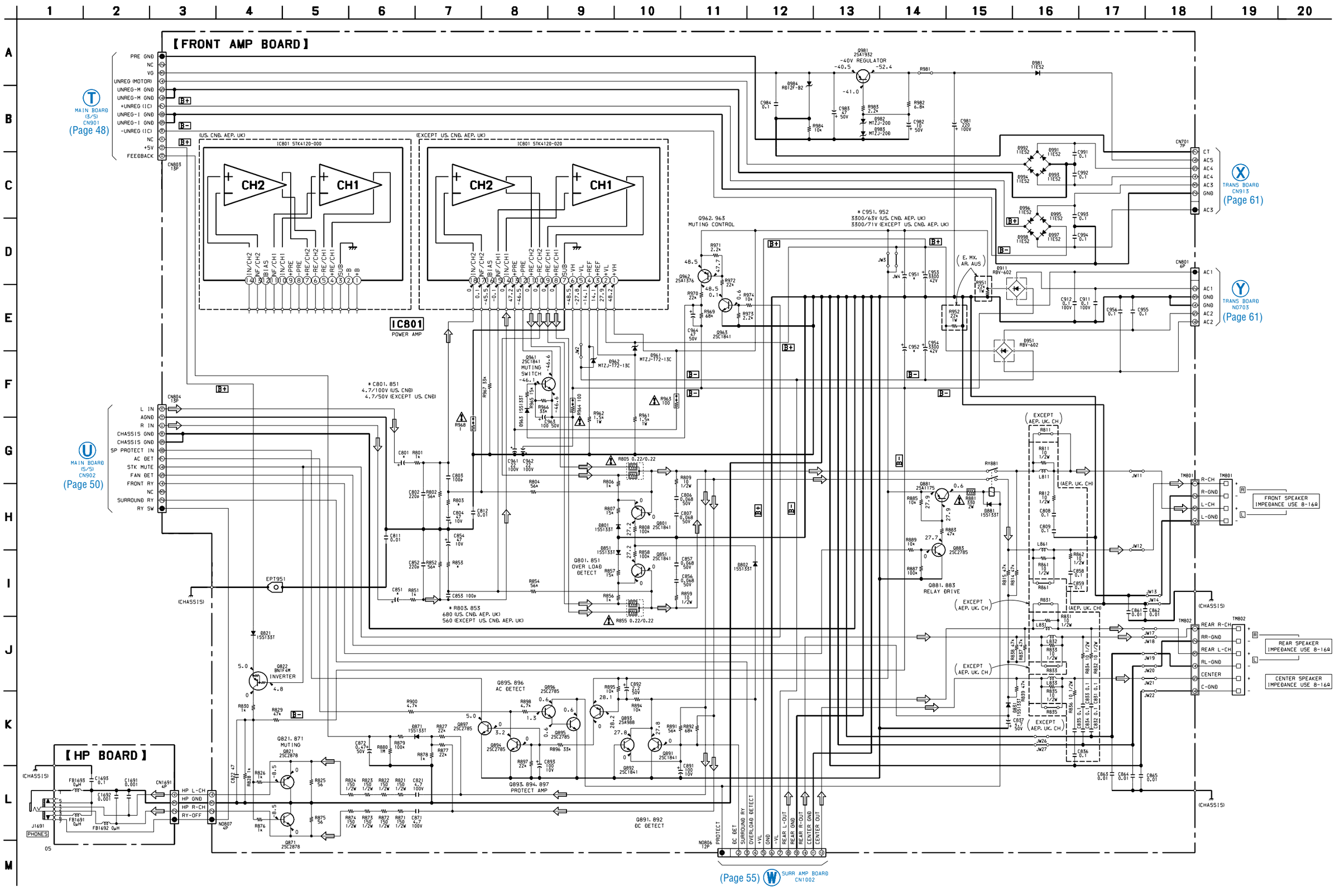
• **Semiconductor Location**

Ref. No.	Location
D801	E-2
D802	F-2
D821	G-1
D831	D-5
D851	E-2
D871	G-2
D881	C-1
D911	G-8
D951	I-9
D961	D-4
D962	D-4
D963	F-3
D981	I-1
D982	I-1
D983	I-1
D984	I-1
D991	H-1
D992	I-1
D993	H-2
D994	I-1
D995	I-3
D996	I-3
D997	I-3
D998	I-3
IC801	D-3
Q801	D-2
Q821	H-2
Q822	G-1
Q851	D-2
Q871	H-3
Q881	C-1
Q883	D-1
Q891	G-7
Q892	G-7
Q893	G-8
Q894	G-8
Q895	G-9
Q896	G-9
Q897	G-9
Q961	F-3
Q962	F-2
Q963	F-2
Q981	I-1





6-33. SCHEMATIC DIAGRAM – FRONT AMP/HP Boards –



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.	以阴影和⚠标志来识别的零部件在安全方面具有关键性。因此只能以规定号码的零部件来更换。

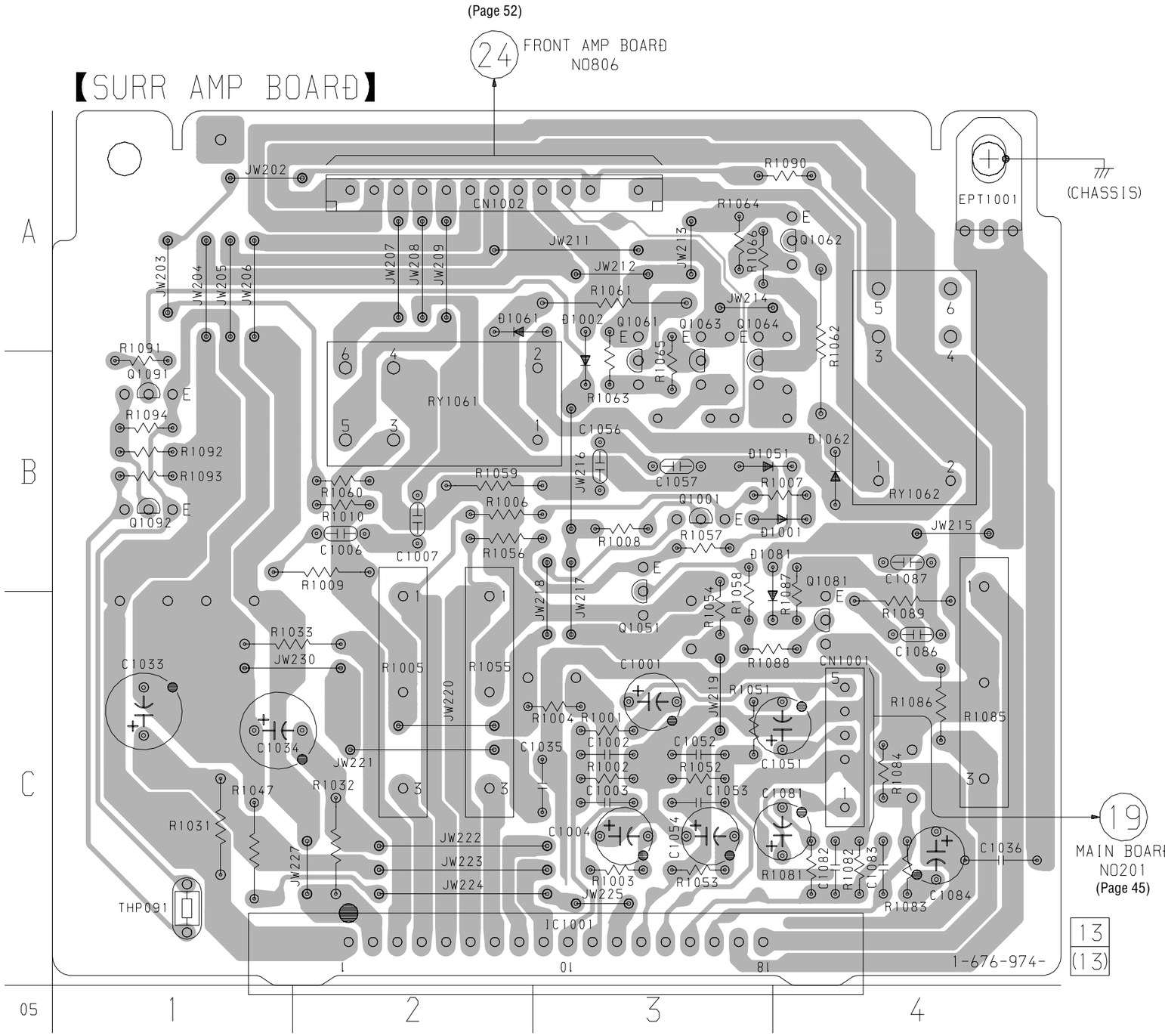
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM

6-34. PRINTED WIRING BOARD – SURR AMP Board –

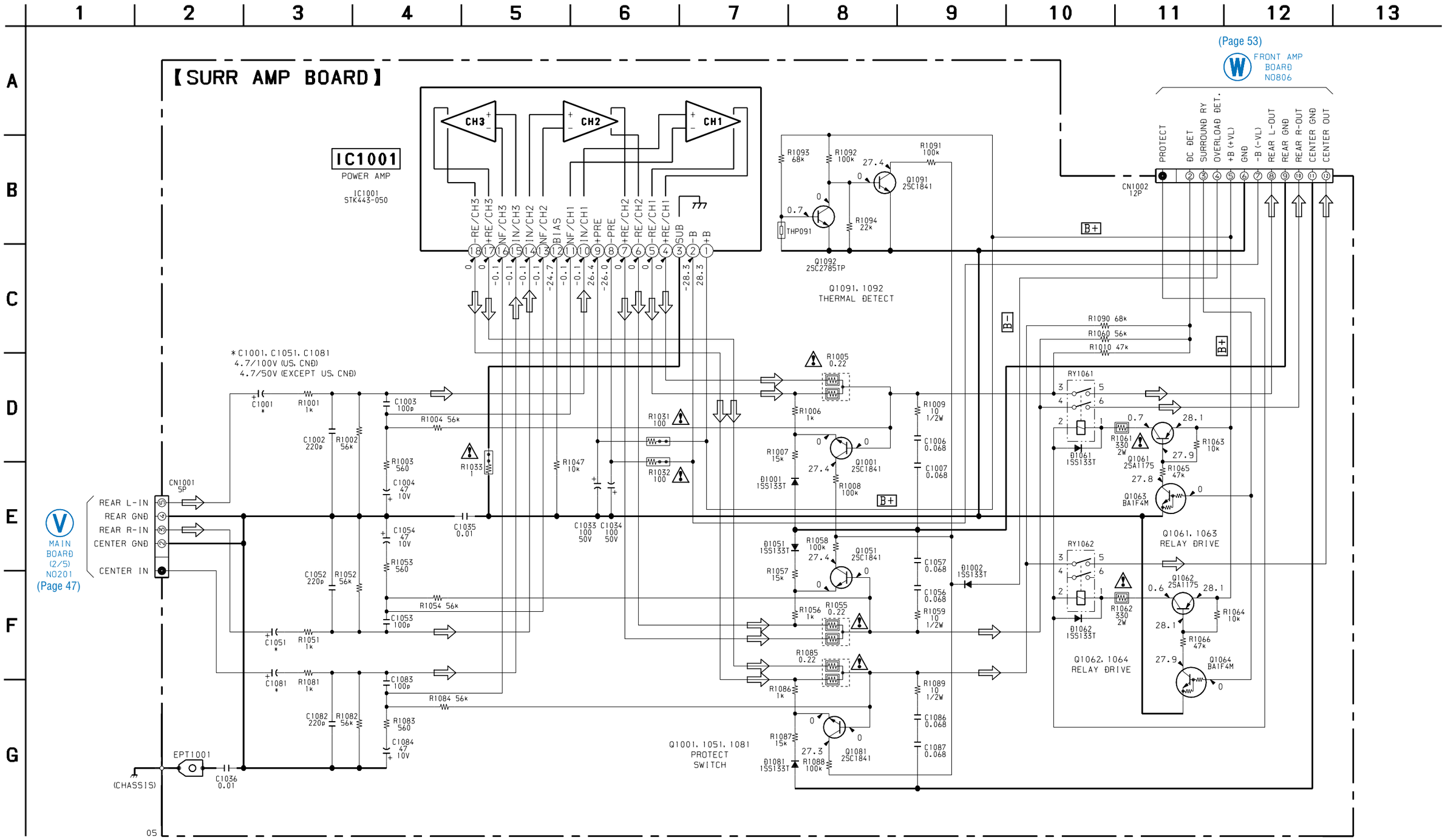
• See page 23 for Circuit Boards Location.

• **Semiconductor Location**

Ref. No.	Location
D1001	B-4
D1002	B-3
D1051	B-3
D1061	A-2
D1062	B-4
D1081	C-3
IC1001	C-3
Q1001	B-3
Q1051	C-3
Q1061	B-3
Q1062	A-4
Q1063	B-3
Q1064	B-3
Q1081	C-4
Q1091	B-1
Q1092	B-1



6-35. SCHEMATIC DIAGRAM – SURR AMP Board –



- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.	以阴影和⚠标志来识别的零部件在安全方面具有关键性。因此只能以规定号码的零部件来更换。

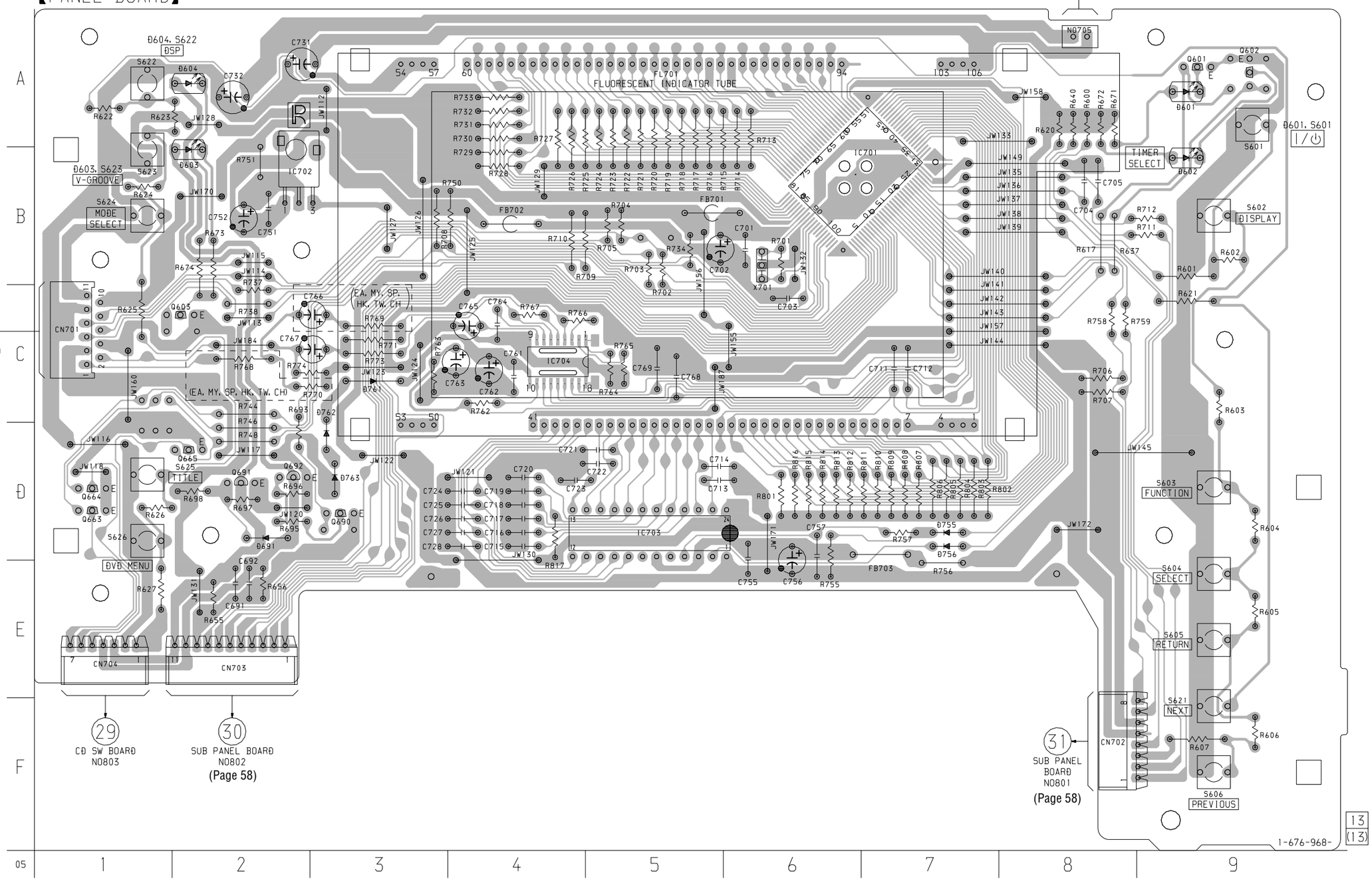
6-36. PRINTED WIRING BOARDS – PANEL/CD SW Boards –

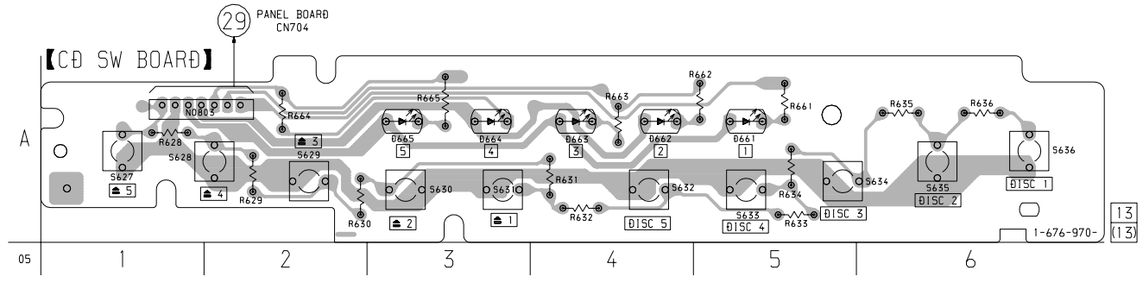
• See page 23 for Circuit Boards Location.

- **Semiconductor Location**

Ref. No.	Location
D601	A-9
D602	B-9
D603	B-2
D604	A-2
D691	D-2
D755	D-7
D756	D-7
D761	C-3
D762	D-3
D763	D-3
IC701	B-6
IC702	B-2
IC703	D-5
IC704	C-4
Q601	A-9
Q602	A-9
Q603	C-2
Q663	D-1
Q664	D-1
Q665	D-2
Q690	D-3
Q691	D-2
Q692	D-2
D661	A-5
D662	A-4
D663	A-4
D664	A-3
D665	A-3

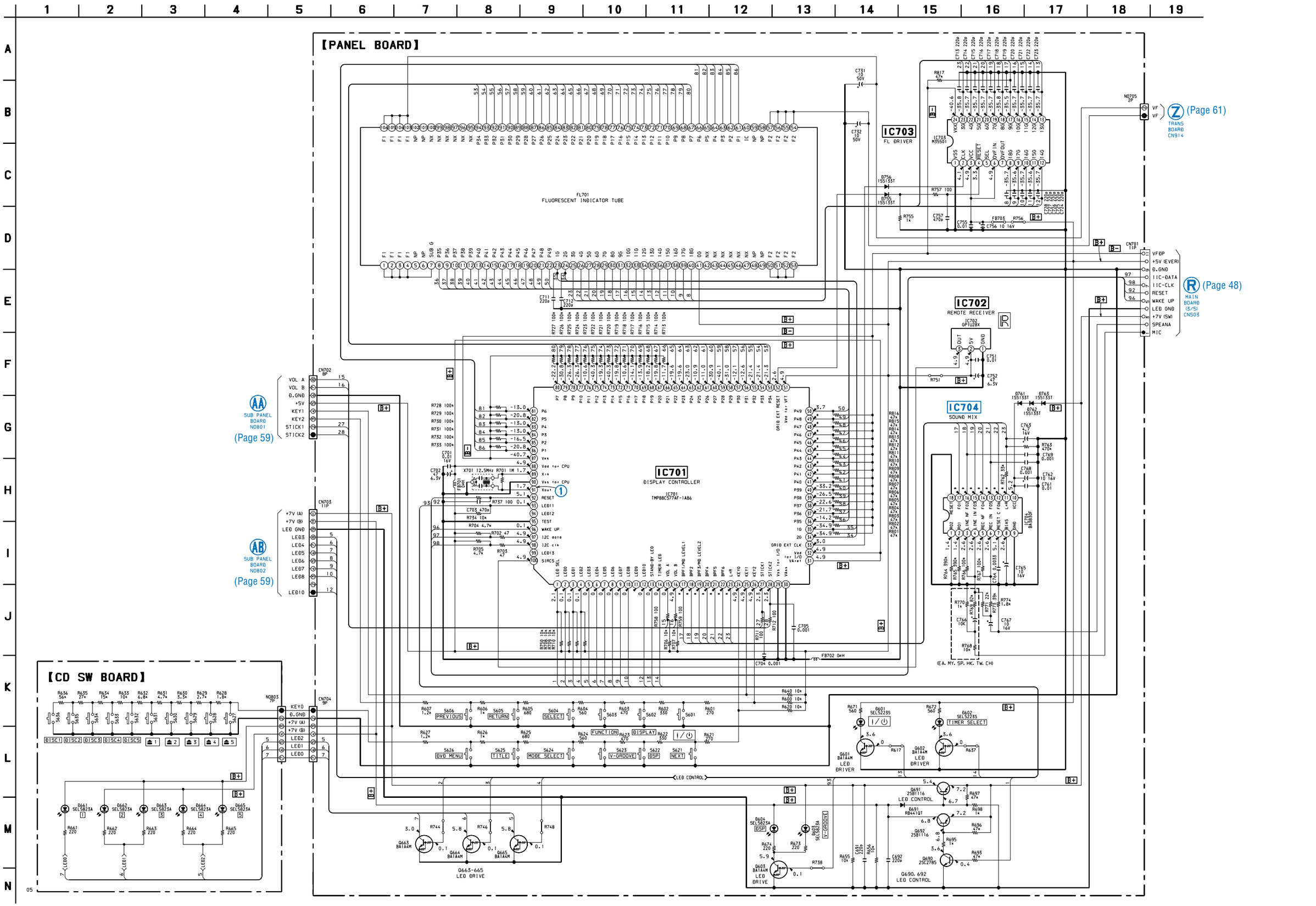
【PANEL BOARD】





6-37. SCHEMATIC DIAGRAM – PANEL/CD SW Boards –

• See page 62 for Waveform. • See page 62 for IC Block Diagram.

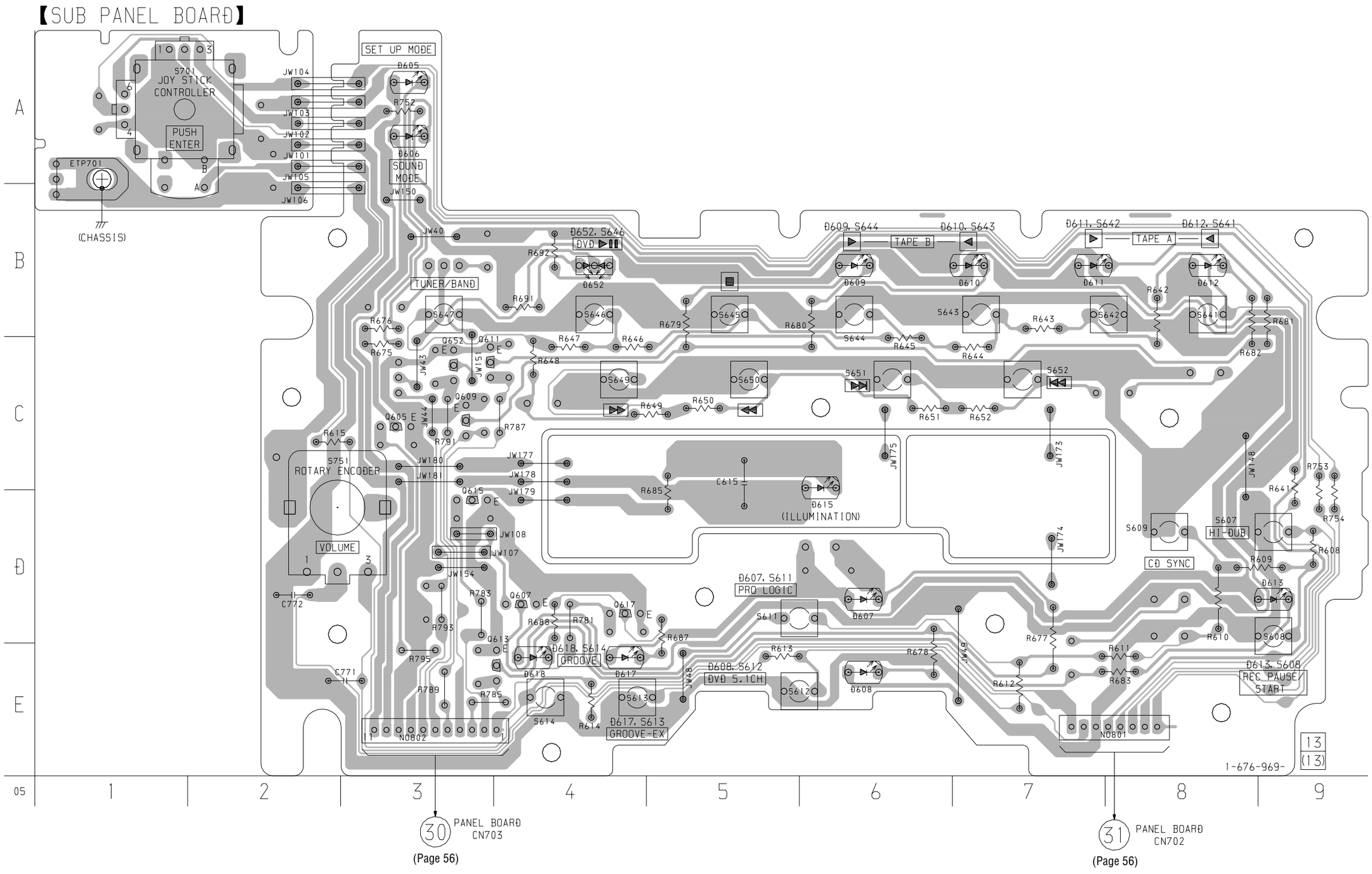


- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM

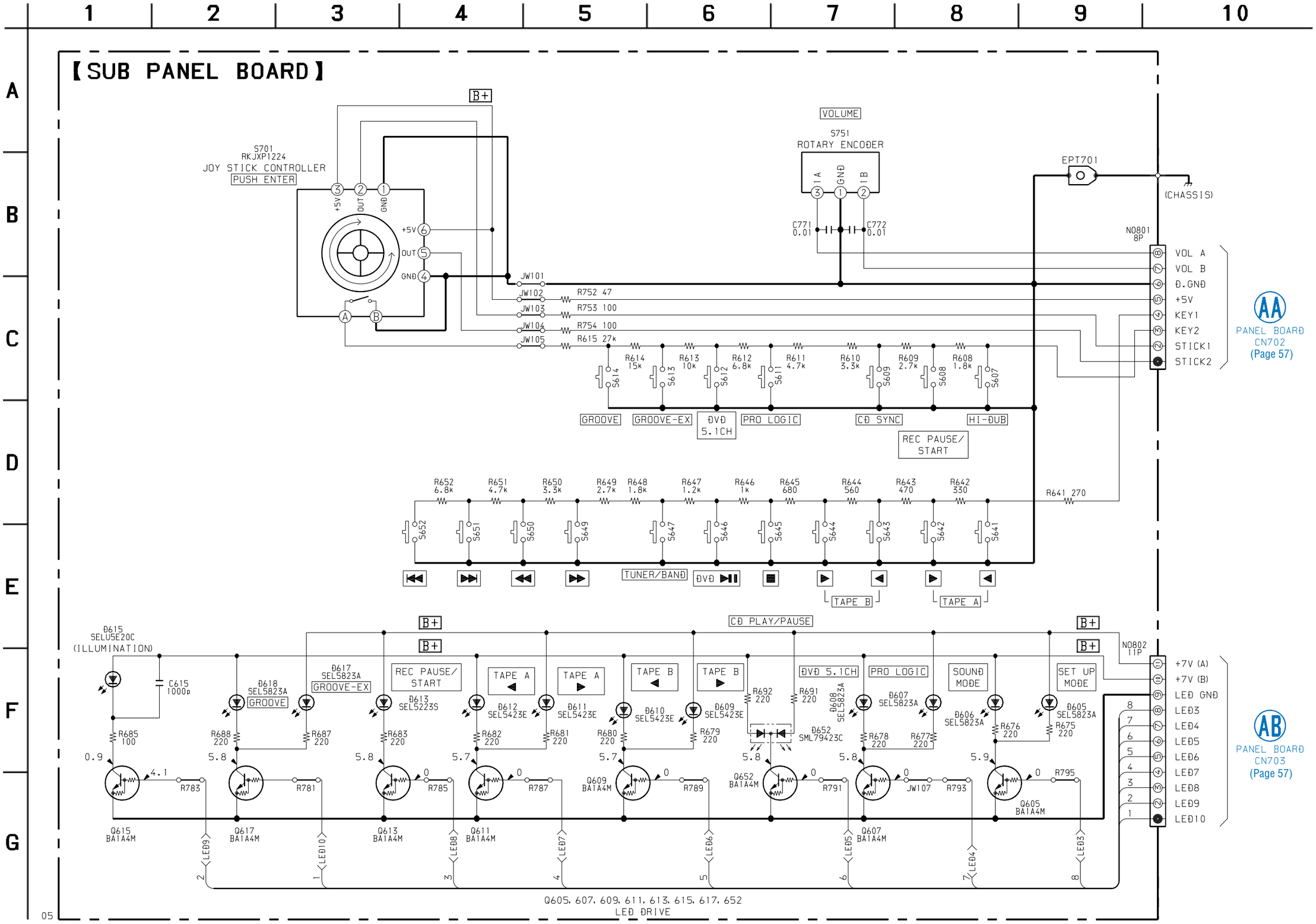
6-38. PRINTED WIRING BOARD – SUB PANEL Board – • See page 23 for Circuit Boards Location.

- **Semiconductor Location**

Ref. No.	Location
D605	A-3
D606	A-3
D607	D-6
D608	E-6
D609	B-6
D610	B-7
D611	B-7
D612	B-8
D613	D-9
D615	C-6
D617	E-4
D618	E-4
D652	B-4
Q605	C-3
Q607	D-4
Q609	C-3
Q611	C-3
Q613	E-4
Q615	D-3
Q617	D-4
Q652	C-3



6-39. SCHEMATIC DIAGRAM – SUB PANEL Board –



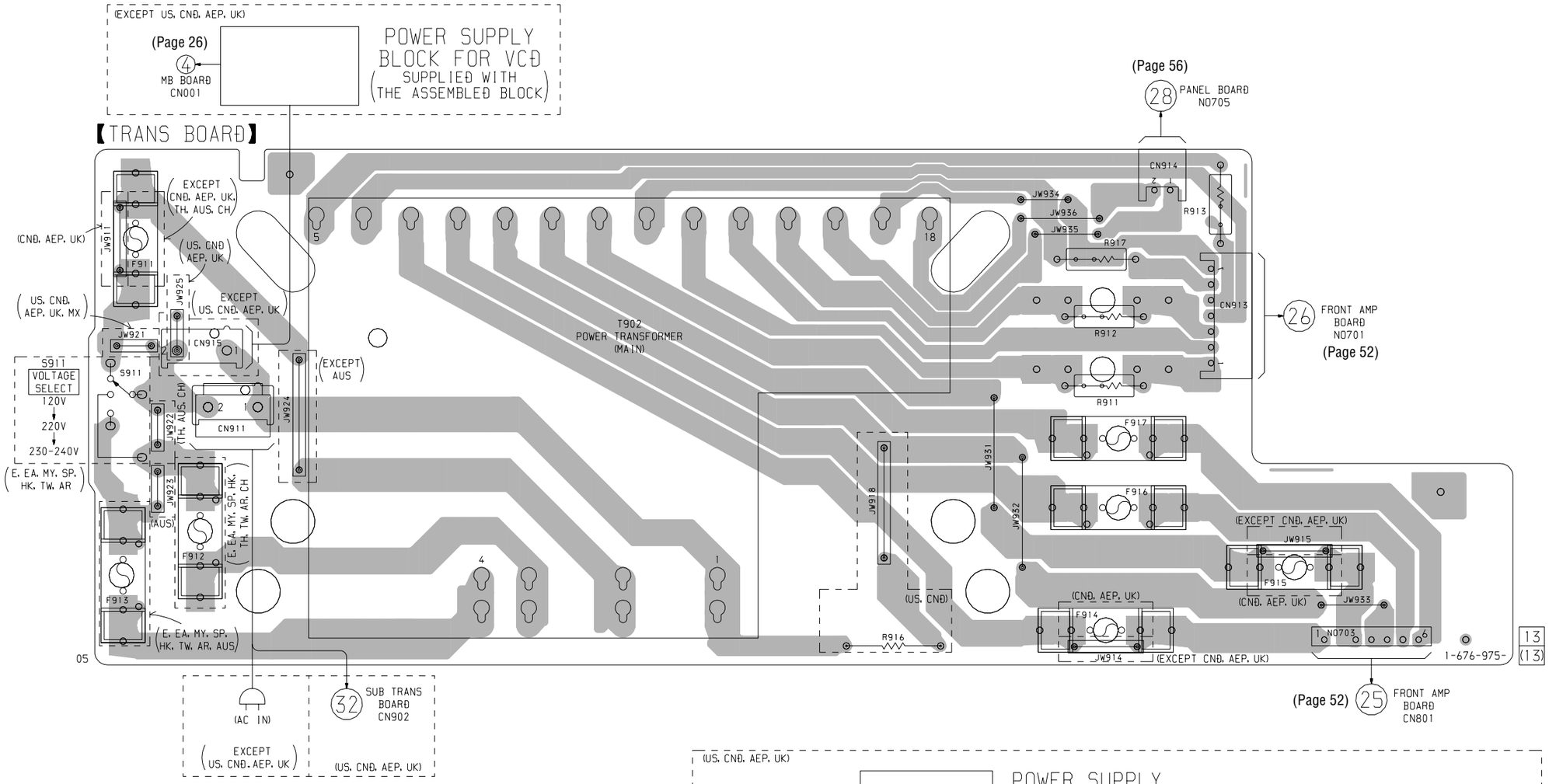
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM

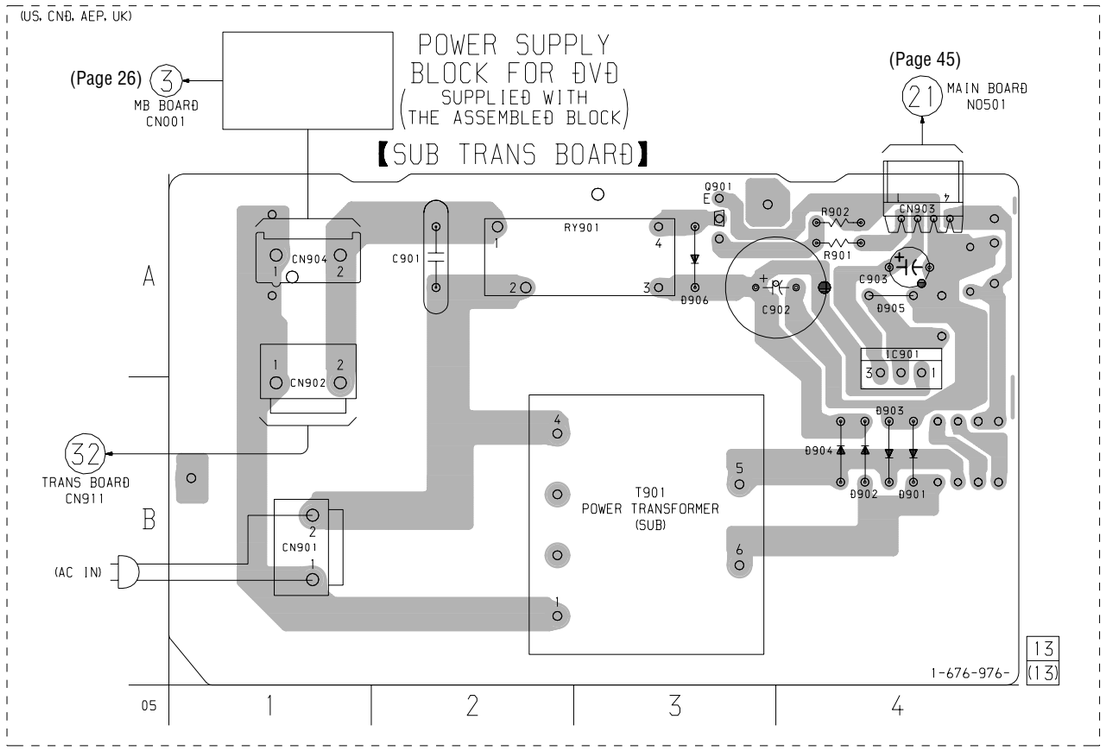
6-40. PRINTED WIRING BOARDS – TRANS/SUB TRANS Boards –

• See page 23 for Circuit Boards Location.

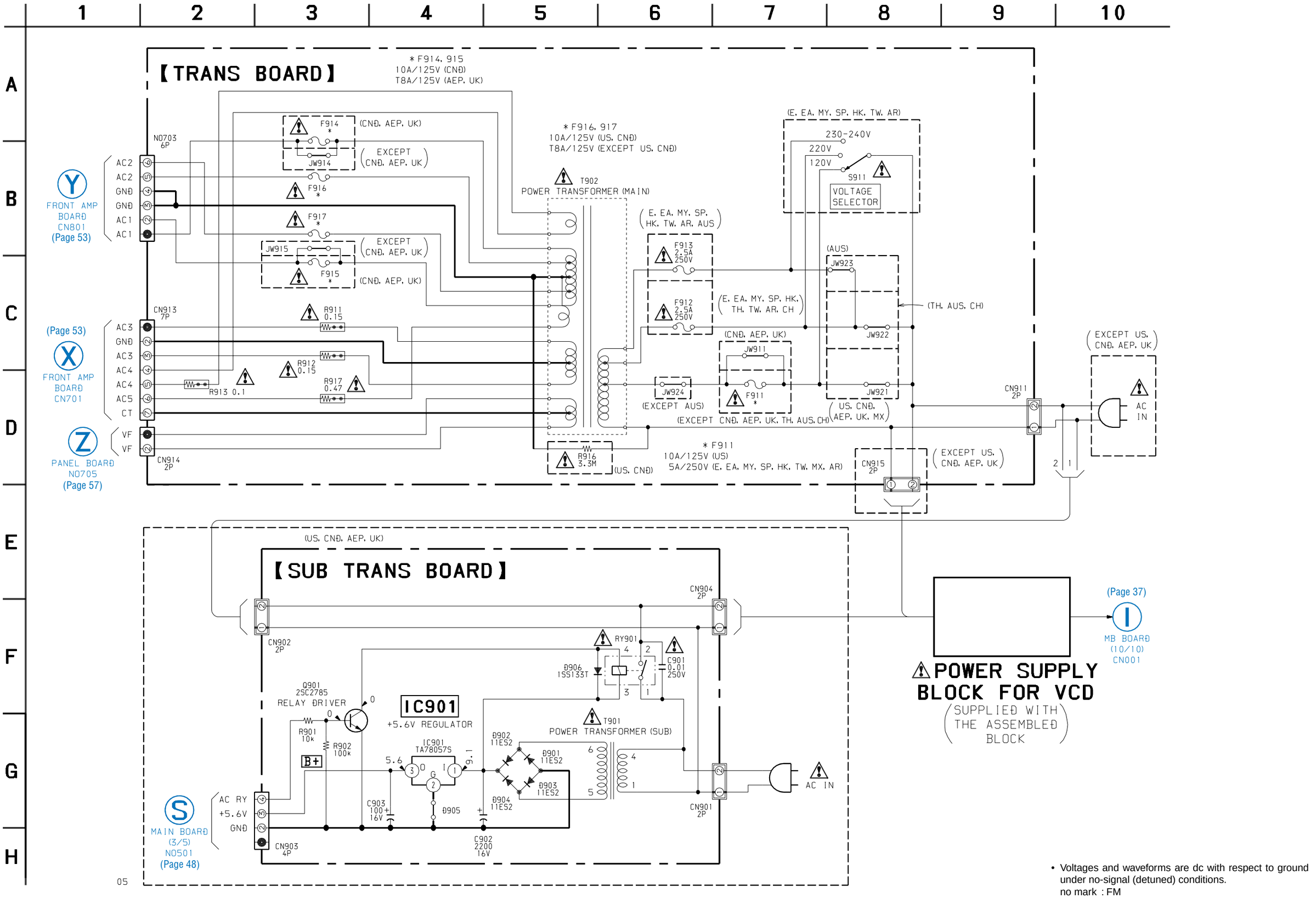
- **Semiconductor Location**

Ref. No.	Location
D901	B-4
D902	B-4
D903	B-4
D904	B-4
D906	A-3
IC901	A-4
Q901	A-3





6-41. SCHEMATIC DIAGRAM – TRANS/SUB TRANS Boards –



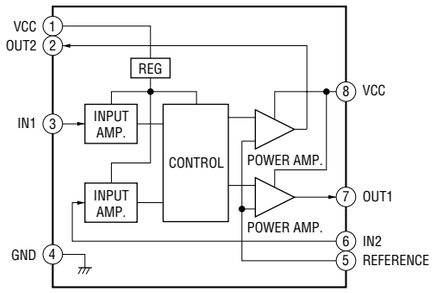
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.	以阴影和⚠标志来识别的零部件在安全方面具有关键性。因此只能以规定号码的零部件来更换。

• IC Block Diagrams

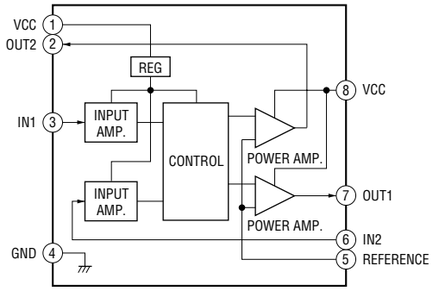
– CLAMP MOTOR Board –

IC701 M54641L



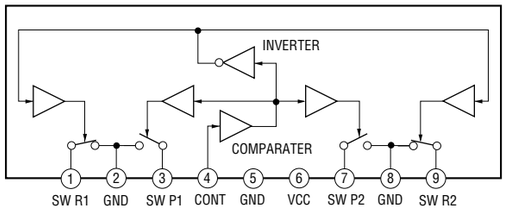
– LOAD MOTOR Board –

IC702 M54641L



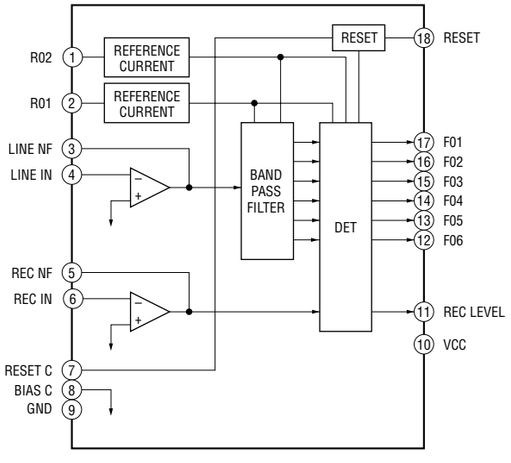
– AUDIO Board –

IC602 µPC1330HA



– PANEL Board –

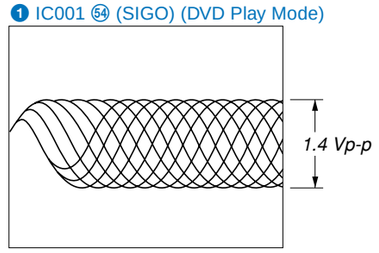
IC704 BA3830F



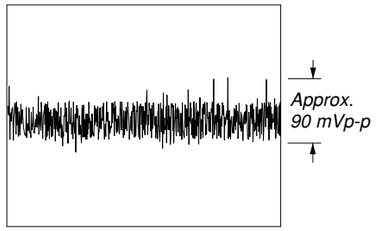
• Waveforms

– TK Board –

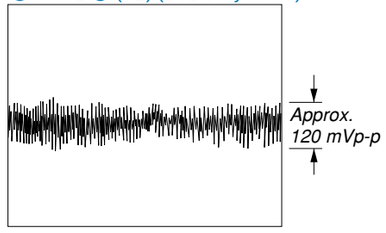
❶ IC001 ㊿ (SIGO) (DVD Play Mode)



❷ IC001 ㊵ (FE) (DVD Play Mode)

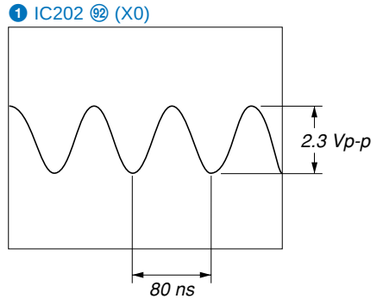


❸ IC001 ㊴ (TE) (DVD Play Mode)

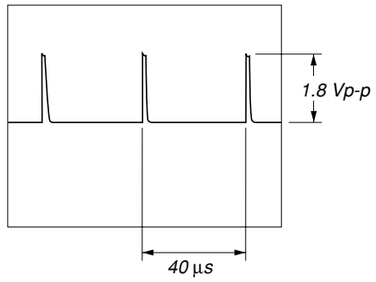


– MB Board –

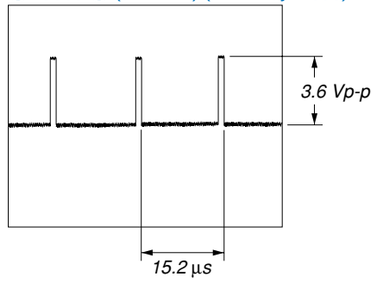
❶ IC202 ㉜ (X0)



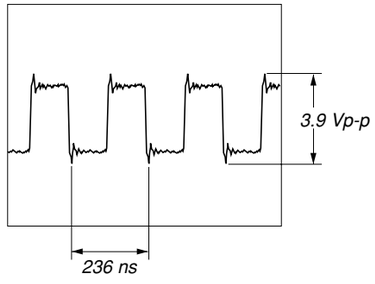
❷ IC303 ㊿ (MDP0) (DVD Play Mode)



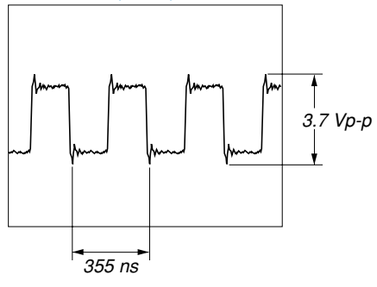
❸ IC303 ㊼ (JITPWM) (DVD Play Mode)



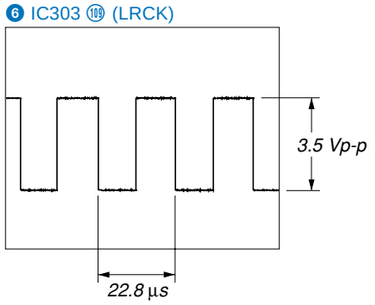
❹ IC303 ㊶ (SDCK)



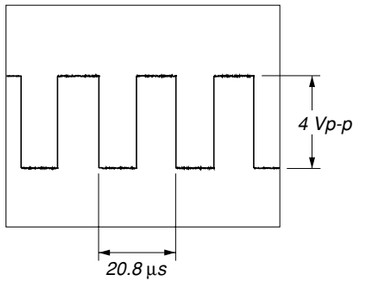
❺ IC303 ㊽ (BCLK)



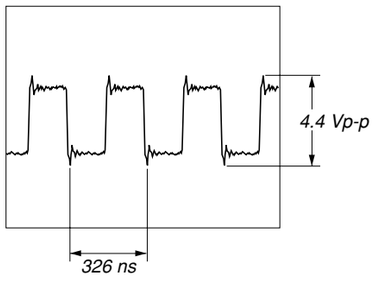
❻ IC303 ㊽ (LRCK)



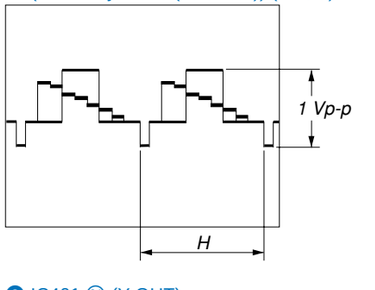
❼ IC401 ㉕ (LRCKO)



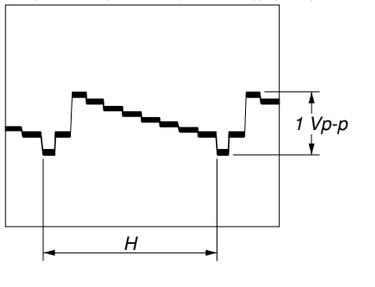
❽ IC401 ㉖



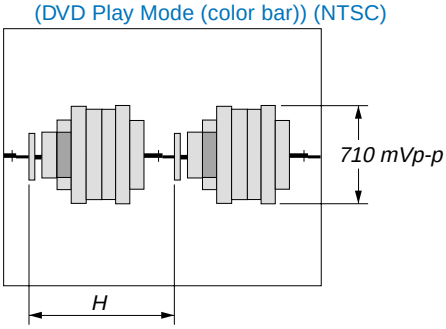
❾ IC401 ㊶ (Y OUT)
(DVD Play Mode (color bar)) (NTSC)



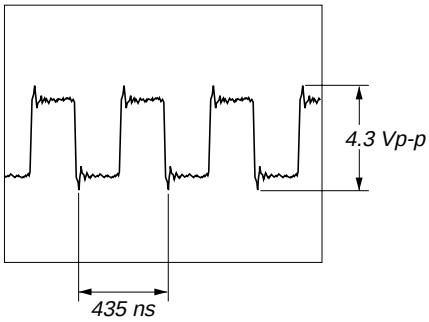
❾ IC401 ㊶ (Y OUT)
(DVD Play Mode (color bar)) (PAL)



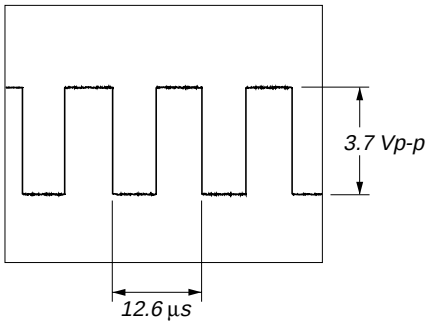
⑩ IC401 ㊷ (C OUT)
(DVD Play Mode (color bar)) (NTSC)



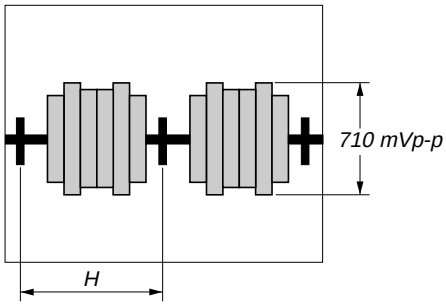
⑬ IC501 ⑨ (BCKO)



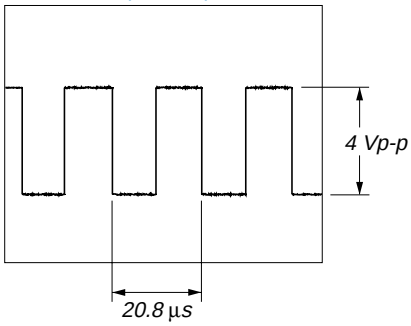
⑱ IC701 ⑧ (PWM1)



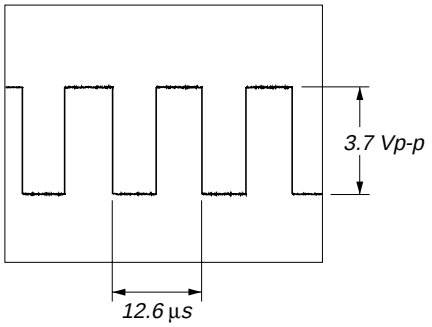
⑩ IC401 ㊷ (C OUT)
(DVD Play Mode (color bar)) (PAL)



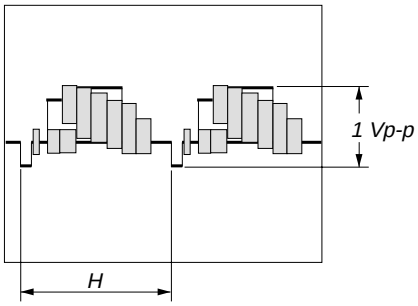
⑭ IC501 ⑩ (LRCKO)



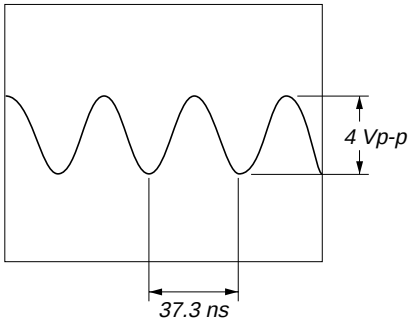
⑲ IC701 ⑨ (PWM0)



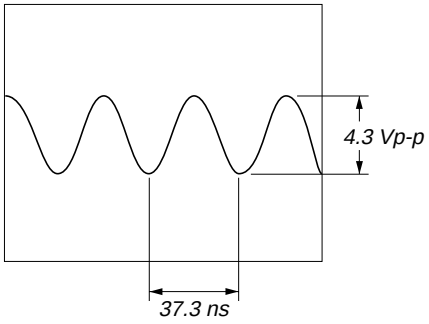
⑪ IC401 ㊺ (COMP OUT)
(DVD Play Mode (color bar)) (NTSC)



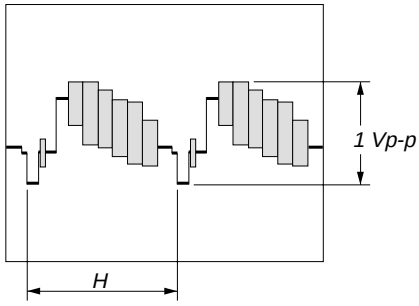
⑮ IC601 ㊾ (MCK)



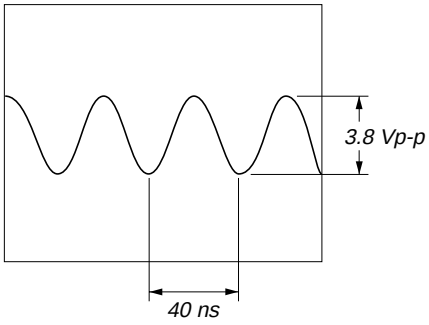
⑳ IC001 ⑥ (XT1)



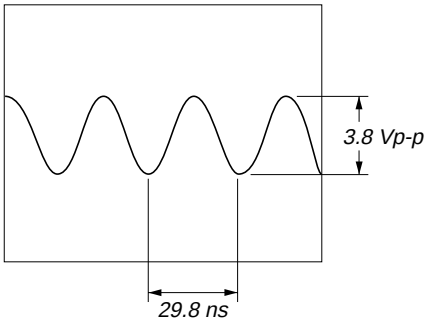
⑪ IC401 ㊺ (COMP OUT)
(DVD Play Mode (color bar)) (PAL)



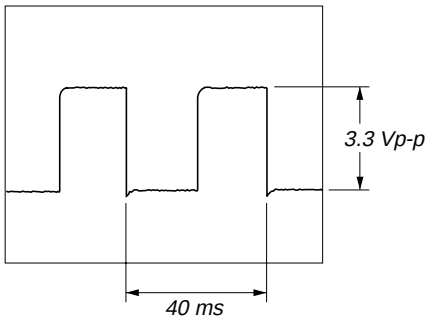
⑯ IC601 ㉝ (CPUCK)



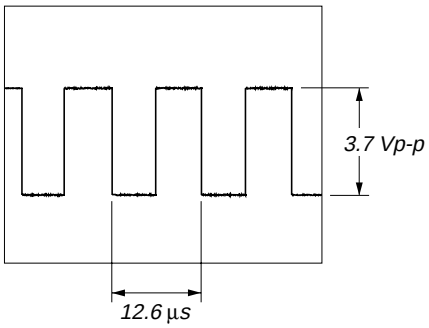
㉑ IC001 ⑫ (SCKO1)



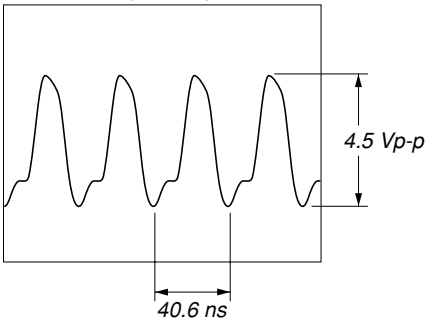
⑫ IC401 ㊷ (FLDO)



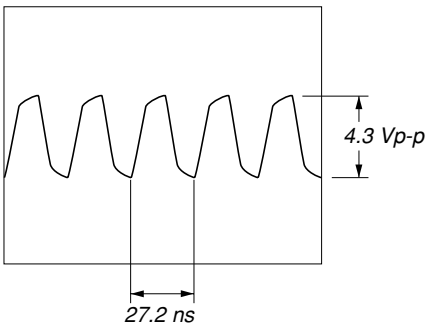
⑰ IC701 ⑦ (PWM2)



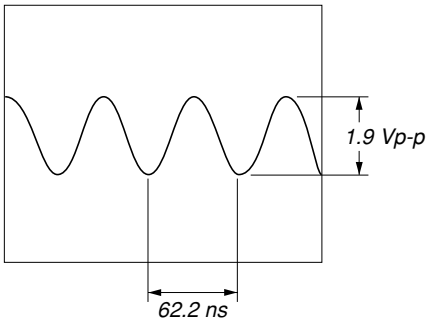
㉒ IC001 ⑭ (SCKO2)



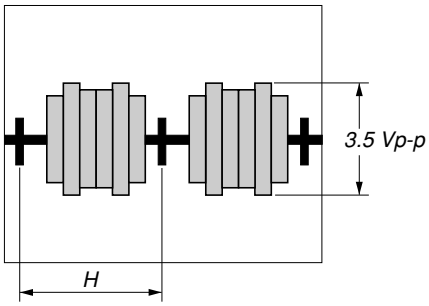
㉓ IC001 ⑰ (SCKO3)



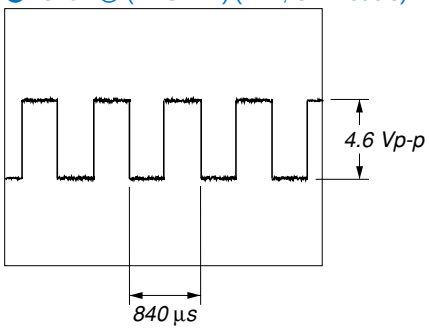
② IC401 ⑮ (X-IN)



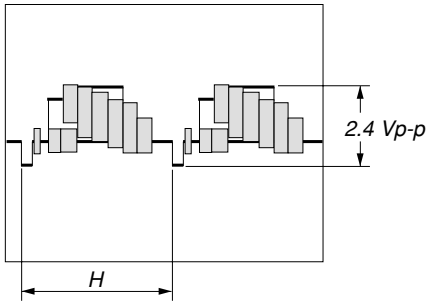
⑤ IC691 ⑩
(DVD Play Mode (color bar)) (PAL)



③ IC401 ⑳ (RDS-INT) (AEP, UK models)

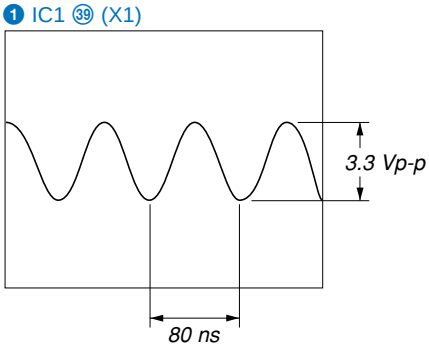


⑥ IC691 ⑬
(DVD Play Mode (color bar)) (NTSC)

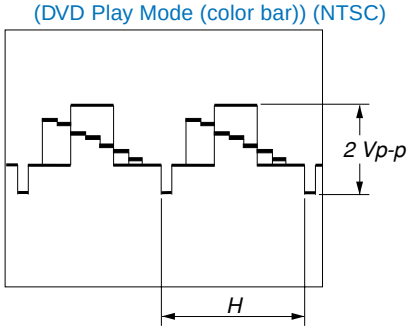


– IF Board –

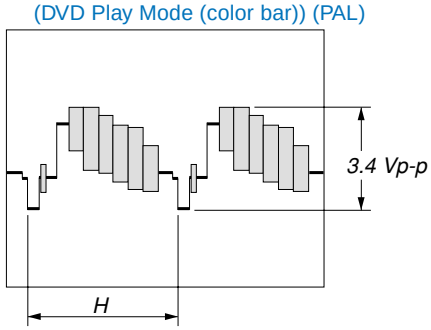
① IC1 ㊴ (X1)



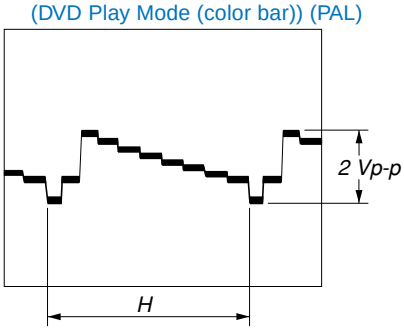
④ IC691 ⑮
(DVD Play Mode (color bar)) (NTSC)



⑥ IC691 ⑬
(DVD Play Mode (color bar)) (PAL)

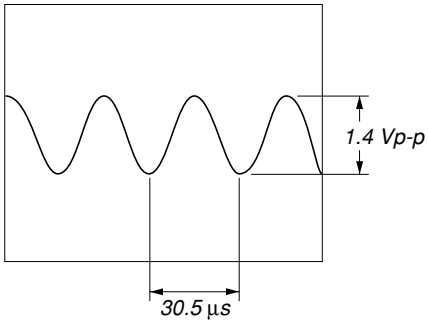


④ IC691 ⑮
(DVD Play Mode (color bar)) (PAL)

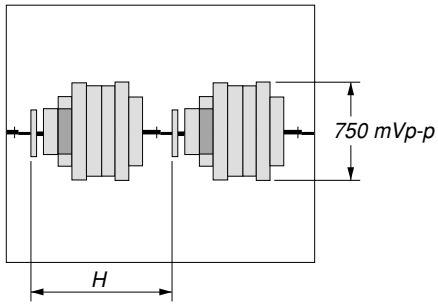


– MAIN Board –

① IC401 ⑩ (XC-IN)

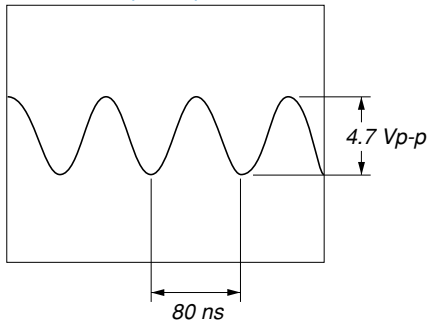


⑤ IC691 ⑩
(DVD Play Mode (color bar)) (NTSC)



– PANEL Board –

① IC701 ㉛ (XOUT)



SECTION 7
EXPLODED VIEWS

NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

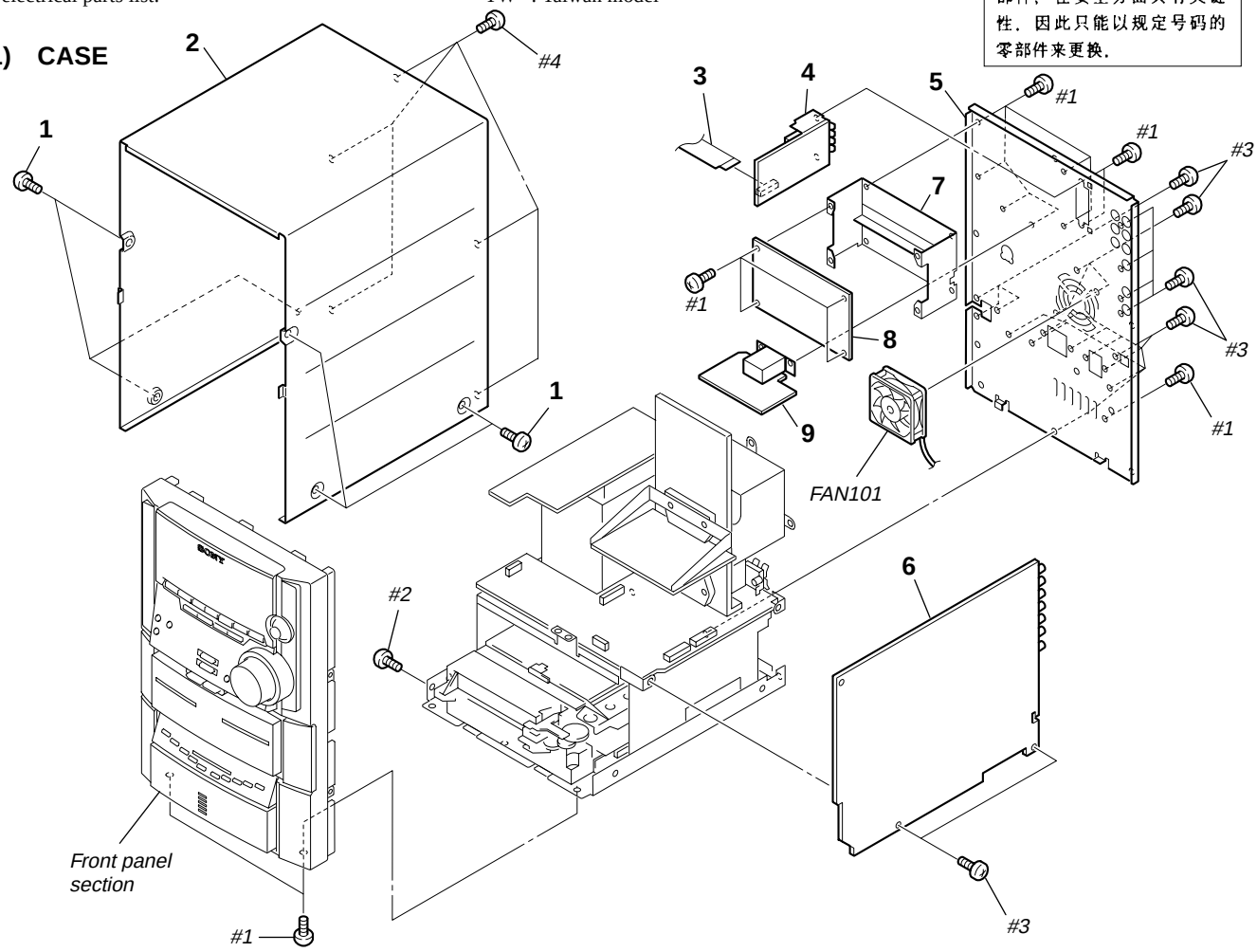
- Abbreviation
  AR : Argentine model
  AUS : Australian model
  CH : Chinese model
  CND : Canadian model
  EA : Saudi Arabia model
  HK : Hong Kong model
  MX : Mexican model
  MY : Malaysia model
  SP : Singapore model
  TH : Thai model
  TW : Taiwan model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

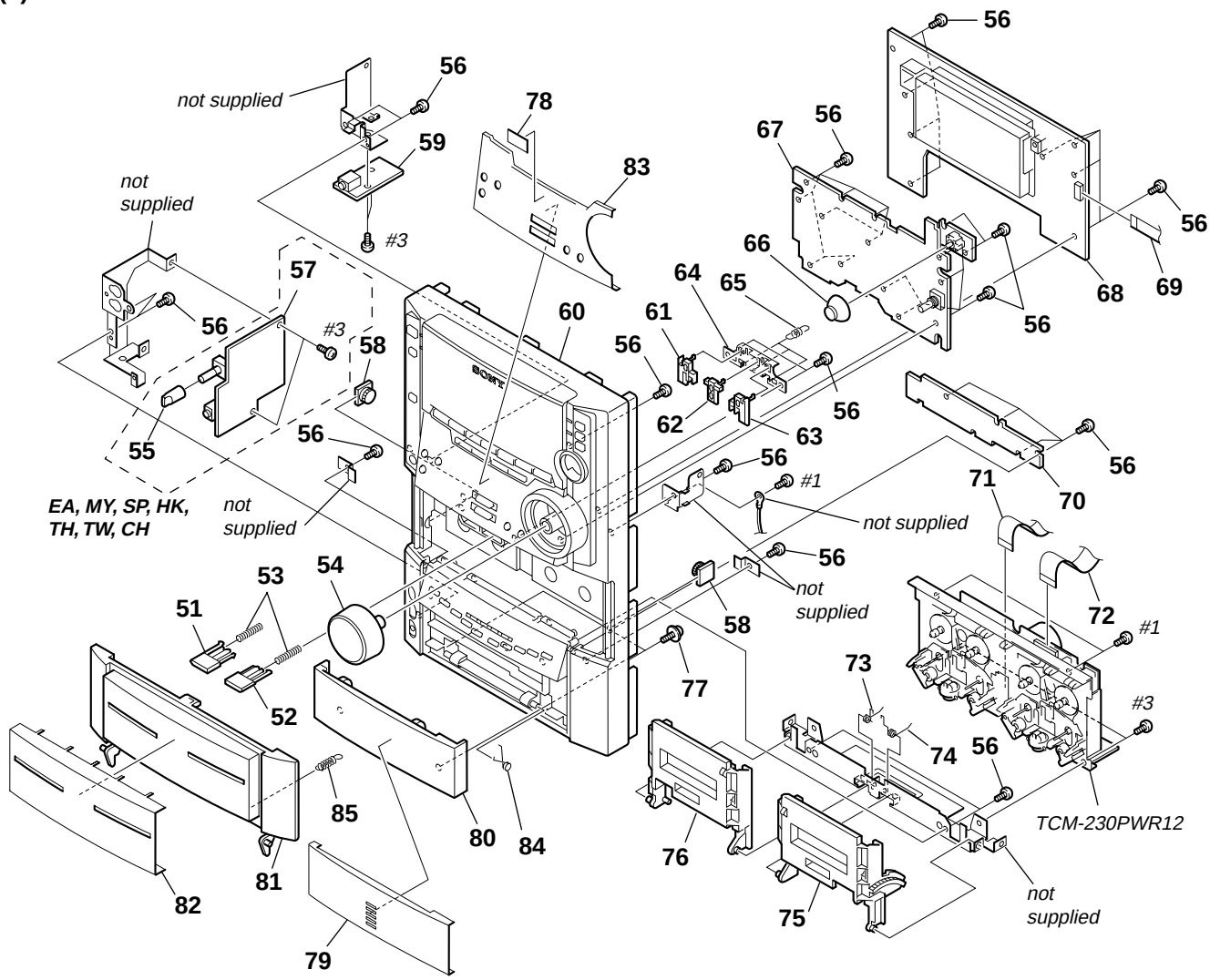
以阴影和 ⚠ 标志来识别的零部件，在安全方面具有关键性，因此只能以规定号码的零部件来更换。

(1) CASE



Ref. No.	Part No.	Description	Remark
1	3-363-099-21	SCREW (CASE 3 TP2)	
2	4-226-746-01	CASE	
3	1-773-009-11	WIRE (FLAT TYPE) (15 CORE) (AEP, UK, CH)	
3	1-769-977-11	WIRE (FLAT TYPE) (13 CORE) (US, CND, E, EA, MX, HK, MY, SP, AR, TH, TW, AUS)	
4	1-693-481-11	TUNER (FM/AM) (US, CND)	
4	1-693-482-11	TUNER (FM/AM) (EA, MY, SP, HK, TH, TW, AUS, MX, AR)	
4	1-693-484-11	TUNER (FM/AM) (E)	
4	1-693-490-11	TUNER (FM/AM) (AEP, UK, CH)	
5	4-227-558-01	PANEL, BACK (US)	
5	4-227-558-11	PANEL, BACK (CND)	
5	4-227-558-21	PANEL, BACK (AEP, UK)	
5	4-227-559-01	PANEL, BACK (EA)	
5	4-227-559-11	PANEL, BACK (MY, SP)	
5	4-227-559-21	PANEL, BACK (E)	
5	4-227-559-31	PANEL, BACK (MX)	
5	4-227-559-41	PANEL, BACK (HK)	
5	4-227-559-51	PANEL, BACK (AUS)	
5	4-227-559-61	PANEL, BACK (TH)	
5	4-227-559-71	PANEL, BACK (AR)	
5	4-227-559-81	PANEL, BACK (CH)	
5	4-227-559-91	PANEL, BACK (TW)	
6	A-4428-997-A	MAIN BOARD, COMPLETE (US, CND)	
6	A-4473-019-A	MAIN BOARD, COMPLETE (AEP, UK)	
6	A-4473-029-A	MAIN BOARD, COMPLETE (MY, SP, HK, TW)	
6	A-4473-670-A	MAIN BOARD, COMPLETE (E, MX, AR)	
6	A-4473-674-A	MAIN BOARD, COMPLETE (EA)	
6	A-4473-690-A	MAIN BOARD, COMPLETE (TH)	
6	A-4473-857-A	MAIN BOARD, COMPLETE (CH)	
6	A-4475-123-A	MAIN BOARD, COMPLETE (AUS)	
7	4-227-815-01	BRACKET (SW)	
8	1-418-687-11	POWER BLOCK (US, CND)	
8	1-476-027-11	POWER BLOCK (EA, MY, SP, HK, TH, TW, AUS, CH)	
8	1-476-028-11	POWER BLOCK (AEP, UK)	
8	1-476-029-11	POWER BLOCK (E, MX, AR)	
9	1-676-976-11	SUB TRANS BOARD (US, CND, AEP, UK)	
FAN101	1-763-072-11	FAN, D.C.	

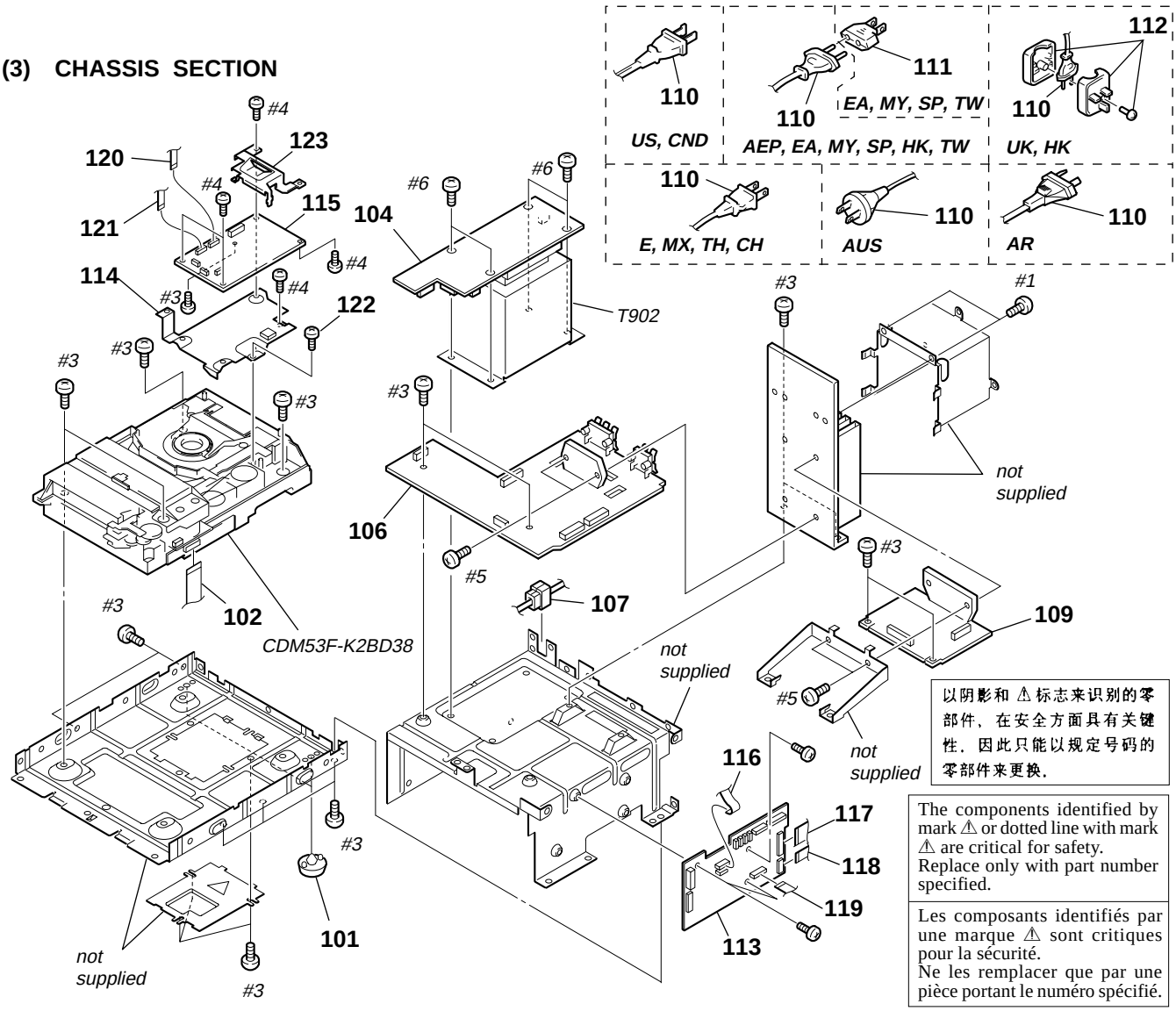
(2) FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	4-226-734-01	BUTTON (A), EJECT	
52	4-226-735-01	BUTTON (B), EJECT	
53	4-226-537-01	SPRING (TC EJECT), COIL	
54	4-226-715-01	KNOB, VOLUEME	
55	4-214-385-91	KNOB (MIC) (EA, MY, SP, HK, TH, TW, CH)	
56	4-951-620-01	SCREW (2.6X8), +BVTP	
57	1-676-972-11	MIC BOARD (EA, MY, SP, HK, TH, TW, CH)	
58	4-224-104-11	DAMPER	
59	1-676-971-11	HP BOARD	
60	X-4952-797-1	PANEL ASSY, FRONT (US)	
60	X-4952-798-1	PANEL ASSY, FRONT (AEP, UK)	
60	X-4952-799-1	PANEL ASSY, FRONT (EA, MY, SP, HK, TH, TW, CH)	
60	X-4952-812-1	PANEL ASSY, FRONT (CND, E, MX, AR, AUS)	
61	4-226-733-01	LOCK (B)	
62	4-226-731-01	LOCK (LID)	
63	4-226-732-01	LOCK (A)	
64	4-226-755-01	COVER, LOCK	
65	4-227-544-01	SPRING, TENSION	
66	4-226-713-01	CURSOR	
67	A-4473-013-A	SUB PANEL BOARD, COMPLETE (EXCEPT TH, CH)	
67	A-4473-680-A	SUB PANEL BOARD, COMPLETE (TH)	
67	A-4473-848-A	SUB PANEL BOARD, COMPLETE (CH)	

Ref. No.	Part No.	Description	Remark
68	A-4473-011-A	PANEL BOARD, COMPLETE (US, CND, AEP, UK, E, MX, AR, AUS)	
68	A-4473-023-A	PANEL BOARD, COMPLETE (EA, MY, SP, HK, TW)	
68	A-4473-683-A	PANEL BOARD, COMPLETE (TH)	
68	A-4473-851-A	PANEL BOARD, COMPLETE (CH)	
69	1-769-938-11	WIRE (FLAT TYPE) (11 CORE)	
70	A-4428-661-A	CD SW BOARD, COMPLETE (EXCEPT TH, CH)	
70	A-4473-825-A	CD SW BOARD, COMPLETE (CH)	
70	A-4473-243-A	CD SW BOARD, COMPLETE (TH)	
71	1-773-022-11	WIRE (FLAT TYPE) (15 CORE) (300mm)	
72	1-773-045-11	WIRE (FLAT TYPE) (17 CORE) (170mm)	
73	4-227-458-01	SPRING (TC A)	
74	4-227-459-01	SPRING (TC B)	
75	X-4952-712-1	HOLDER (B) ASSY, TC	
76	X-4952-711-1	HOLDER (A) ASSY, TC	
77	4-957-577-01	SCREW PTP WH (2.6X8) (DIA. 10)	
78	3-056-508-01	EMBLEM, DVD	
79	4-226-741-11	PANEL (CD), ALUMINUM	
80	4-226-737-01	LID (CD)	
81	4-226-729-01	LID, TC	
82	4-226-728-01	PANEL (TC), ALUMINUM	
83	4-226-712-41	PANEL (STR), ALUMINUM	
84	4-226-897-01	SPRING (CD)	
85	4-227-460-01	SPRING, TENSION	

(3) CHASSIS SECTION



以阴影和 ⚠ 标志来识别的零部件，在安全方面具有关键性，因此只能以规定号码的零部件来更换。

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Replace only with part number specified.

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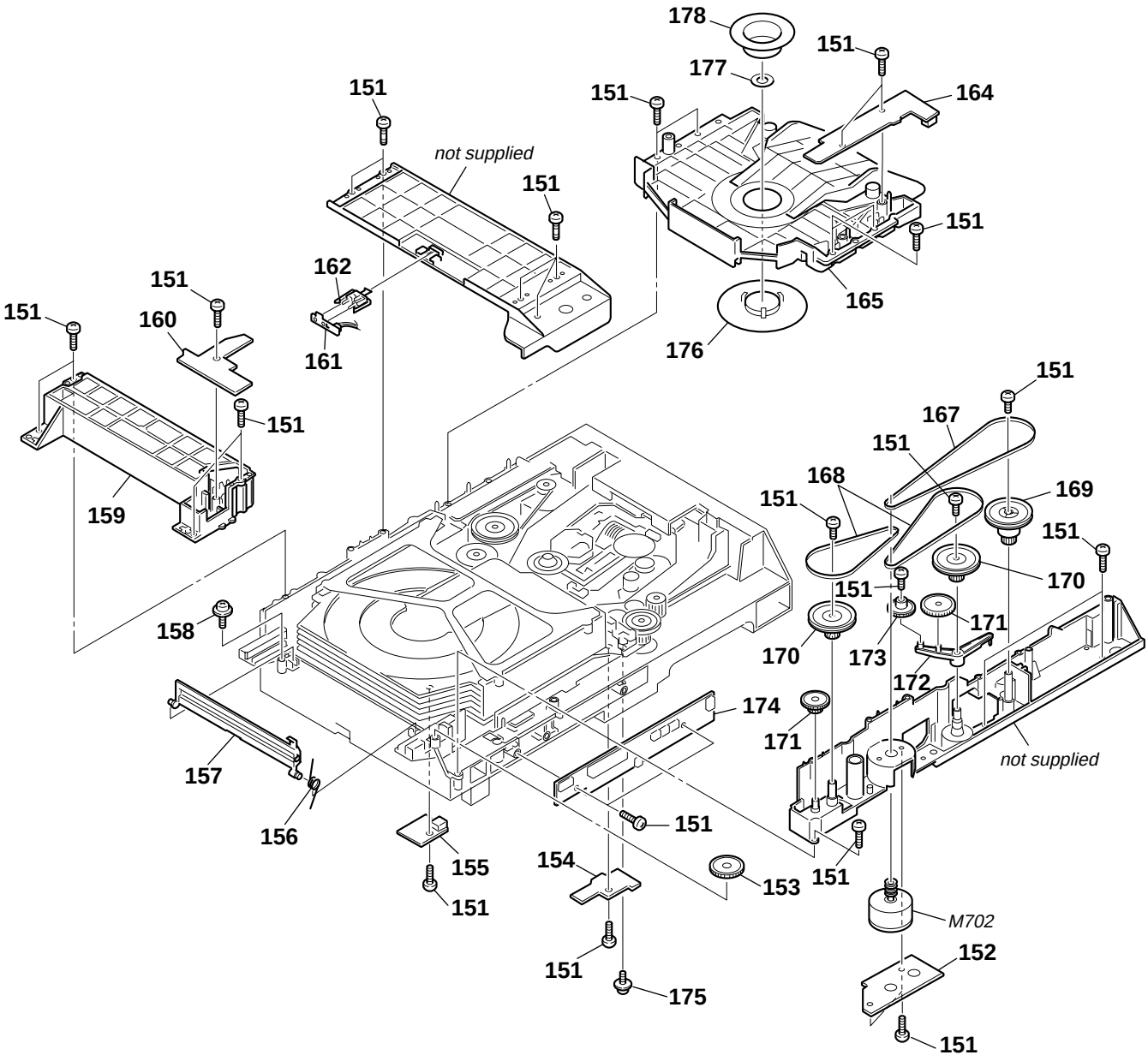
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
101	4-965-822-01	FOOT	
102	1-792-798-11	WIRE (FLAT TYPE) (17 CORE) (120mm)	
104	1-676-975-11	TRANS BOARD	
106	A-4428-992-A	FRONT AMP BOARD, COMPLETE (US)	
106	A-4473-016-A	FRONT AMP BOARD, COMPLETE (AEP, UK)	
106	A-4473-026-A	FRONT AMP BOARD, COMPLETE (EA, MY, SP, HK, TW, AUS)	
106	A-4473-668-A	FRONT AMP BOARD, COMPLETE (E, MX, AR)	
106	A-4473-687-A	FRONT AMP BOARD, COMPLETE (TH)	
106	A-4473-695-A	FRONT AMP BOARD, COMPLETE (CND)	
106	A-4473-854-A	FRONT AMP BOARD, COMPLETE (CH)	
* 107	3-703-244-00	BUSHING (2104), CORD (US, CND, AEP, UK, EA, MY, SP, HK, TW, AR, AUS, CH)	
107	3-703-571-11	BUSHING (S) (4516), CORD (E, TH, MX)	
109	A-4428-632-A	SURR AMP BOARD, COMPLETE (AEP, UK)	
109	A-4428-643-A	SURR AMP BOARD, COMPLETE (E, EA, MY, SP, HK, TW, MX, AR, AUS)	
109	A-4428-994-A	SURR AMP BOARD, COMPLETE (US, CND)	
109	A-4473-251-A	SURR AMP BOARD, COMPLETE (TH)	
109	A-4473-831-A	SURR AMP BOARD, COMPLETE (CH)	
⚠110	1-690-608-11	CORD, POWER (AUS)	
⚠110	1-777-070-11	CORD, POWER (CND)	
⚠110	1-777-071-51	CORD, POWER (AEP, UK, EA, MY, SP, HK, TW)	
⚠110	1-782-464-21	CORD, POWER (CH)	
⚠110	1-783-531-11	CORD, POWER (US)	
⚠110	1-783-941-21	CORD, POWER (AR)	
⚠110	1-791-901-11	CORD, POWER (E, TH, MX)	

Ref. No.	Part No.	Description	Remark
⚠111	1-569-008-21	ADAPTOR, CONVERSION 2P (EA, MY, SP, TW)	
⚠112	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (UK, HK)	
113	A-4473-238-A	IF BOARD, COMPLETE (EXCEPT TH, CH)	
113	A-4473-693-A	IF BOARD, COMPLETE (TH)	
113	A-4473-860-A	IF BOARD, COMPLETE (CH)	
114	4-227-814-01	BRACKET (DVD)	
115	A-4473-710-A	MB BOARD, COMPLETE (US, CND)	
115	A-4473-711-A	MB BOARD, COMPLETE (AEP, UK)	
115	A-4473-712-A	MB BOARD, COMPLETE (E, MX, AR)	
115	A-4473-713-A	MB BOARD, COMPLETE (EA)	
115	A-4473-714-A	MB BOARD, COMPLETE (MY, SP, HK, TW)	
115	A-4473-715-A	MB BOARD, COMPLETE (AUS)	
115	A-4473-709-A	MB BOARD, COMPLETE (TH)	
115	A-4473-861-A	MB BOARD, COMPLETE (CH)	
116	1-792-799-11	WIRE (FLAT TYPE) (10 CORE)	
117	1-792-800-11	WIRE (FLAT TYPE) (23 CORE) (160mm)	
118	1-792-801-11	WIRE (FLAT TYPE) (13 CORE) (190mm)	
119	1-792-802-11	WIRE (FLAT TYPE) (17 CORE) (170mm)	
120	1-792-797-11	WIRE (FLAT TYPE) (18 CORE) (PLATE: BLUE)	
121	1-792-797-21	WIRE (FLAT TYPE) (18 CORE) (PLATE: WHITE)	
122	4-951-620-01	SCREW (2.6X8), +BVTP	
123	4-227-816-01	HEAT SINK (DVD)	
⚠T902	1-435-475-11	TRANSFORMER, POWER (US, CND)	
⚠T902	1-435-391-11	TRANSFORMER, POWER (AEP, UK)	
⚠T902	1-435-392-11	TRANSFORMER, POWER (EXCEPT US, CND, AEP, UK)	

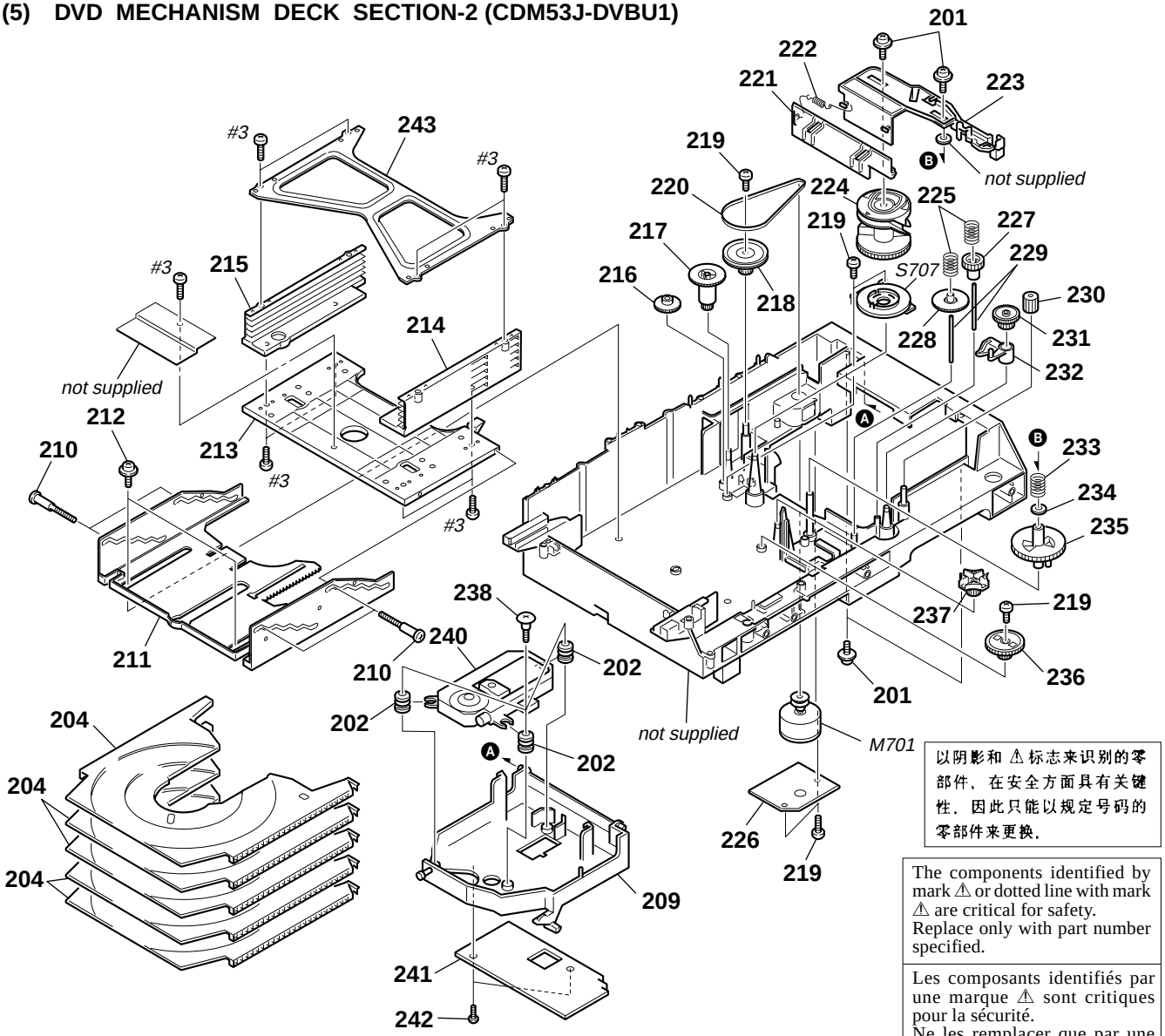
(4) DVD MECHANISM DECK SECTION-1 (CDM53J-DVBU1)



Ref. No.	Part No.	Description	Remark
151	4-218-253-11	SCREW (M2.6), +BTTP	
152	1-675-728-11	LOAD MOTOR BOARD	
153	4-220-261-01	GEAR (EJECT)	
154	1-675-724-11	INIT/COUNT SW BOARD	
155	1-675-726-11	SENSOR BOARD	
156	4-212-676-01	SPRING (LID), TORSION	
157	4-212-674-01	LID (DISC)	
158	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
159	A-4672-873-A	BASE (GUIDE) ASSY, FITTING	
160	1-675-725-11	OUT SW BOARD	
161	1-675-727-11	SENSOR 2 BOARD	
162	4-964-461-02	HOLDER (SENSOR)	
164	1-675-723-11	IN SW BOARD	
165	A-4672-872-D	BASE (MAGNET) ASSY, FITTING	

Ref. No.	Part No.	Description	Remark
167	4-211-235-01	BELT (COMMUNICATION)	
168	4-211-236-01	BELT (LOADING)	
169	4-211-231-01	PULLEY (MODE)	
170	4-211-214-01	PULLEY (LD)	
171	4-211-232-01	GEAR (LD DECELERATION)	
172	4-211-228-01	LEVER (GOOSENECK)	
173	4-214-130-01	GEAR (TRAY)	
174	1-675-722-11	CONNECTOR BOARD	
175	3-341-549-01	SCREW(2.6X12) (DIA.7.5), +PTP WH	
176	4-226-821-02	PLATE, CHUCKING	
177	3-053-844-01	YOKE	
178	4-223-293-01	RETAINER, YOKE	
M702	X-4950-342-1	MOTOR (LOADING) ASSY	

(5) DVD MECHANISM DECK SECTION-2 (CDM53J-DVBU1)



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Replace only with part number specified.

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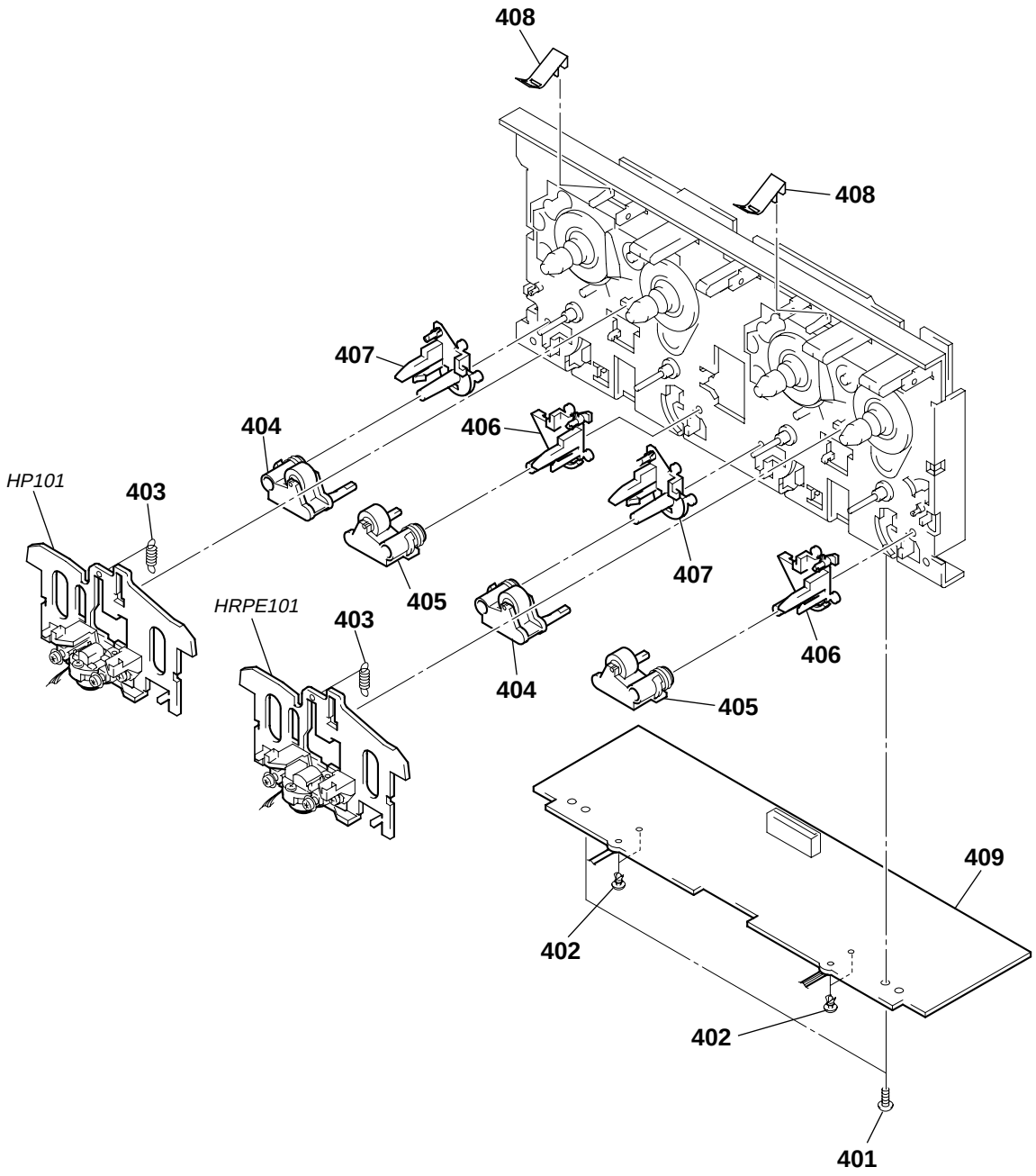
Ref. No.	Part No.	Description	Remark
201	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
202	3-053-847-01	INSULATOR	
204	4-223-291-11	TRAY (DVD)	
209	4-223-292-11	HOLDER (DVD)	
210	4-211-244-01	SCREW, STEP	
211	4-211-223-01	SLIDER (U/D)	
212	4-933-134-01	SCREW (M2.6), +PTPWH	
213	4-221-504-01	BASE (STOCKER), FITTING	
214	4-211-211-01	STOCKER (R)	
215	4-211-210-01	STOCKER (L)	
216	4-211-215-01	GEAR (EJECT)	
217	4-211-232-01	GEAR (MODE DECELERATION)	
218	4-211-214-01	PULLEY (LD)	
219	4-218-253-21	SCREW (M2.6), +BTTP	
220	4-211-237-01	BELT (MODE)	
221	4-212-677-01	SLIDER (SHUTTER)	
222	4-212-678-01	SPRING (SHUTTER), TENSION	
223	4-211-233-01	SLIDER (SELECTION)	
224	4-211-230-01	GEAR (CHUCKING)	
225	4-211-245-01	SPRING, COMPRESSION	

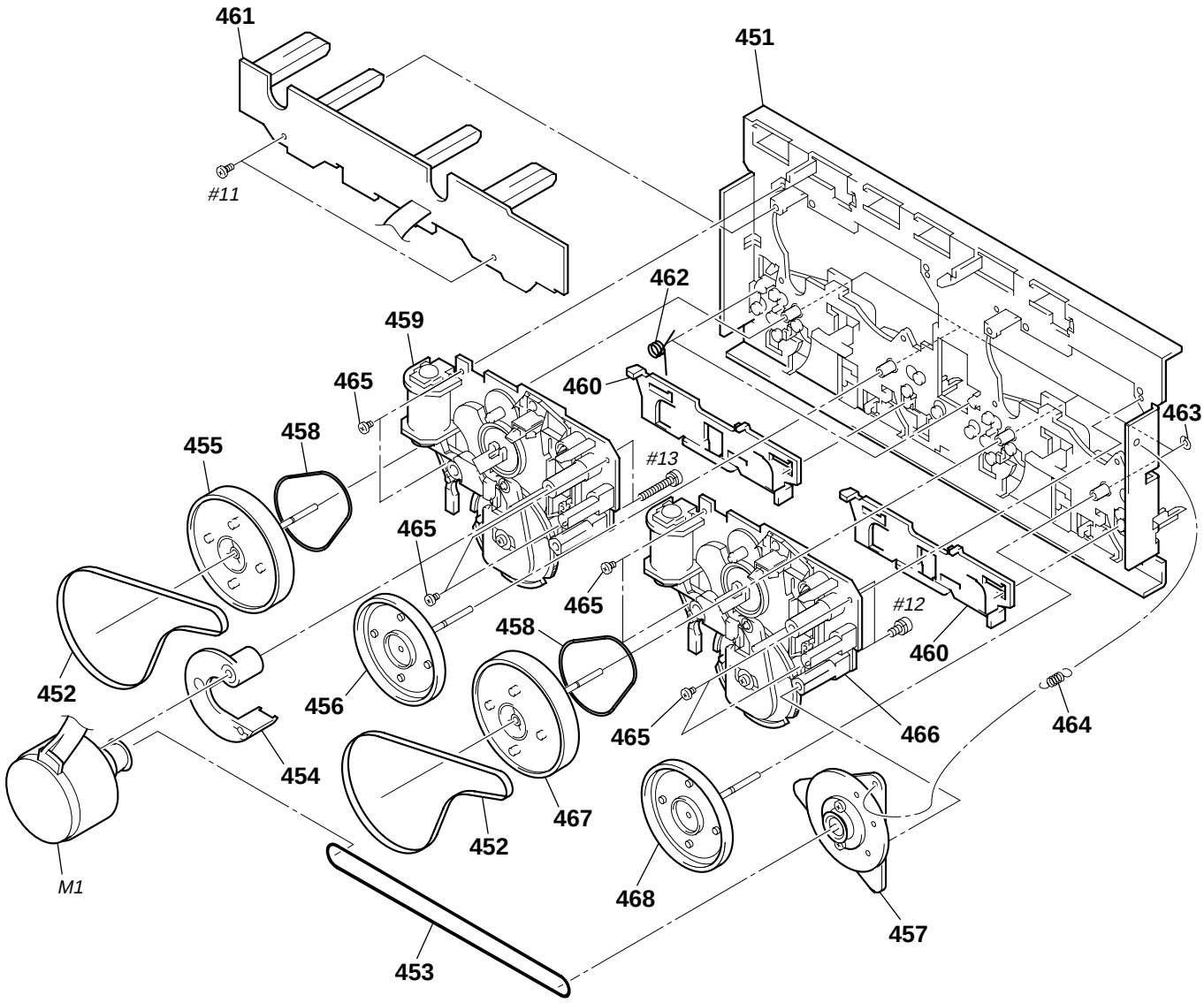
Ref. No.	Part No.	Description	Remark
226	1-675-729-11	CLAMP MOTOR BOARD	
227	4-211-221-01	GEAR (LD MOVABLE)	
228	4-211-217-01	GEAR (SELECTION)	
229	4-211-242-11	SHAFT (SELECTION GEAR)	
230	4-211-240-01	GEAR (LD DECELERATION B)	
231	4-211-216-01	GEAR (RELAY)	
232	4-211-241-01	LEVER (SELECTION)	
233	4-216-879-01	SPRING (GEAR), COMPRESSION	
234	3-701-446-21	WASHER	
235	4-211-218-01	GEAR (GEAR A)	
236	4-211-220-01	GEAR (U/D SLIDER)	
237	4-211-219-01	GEAR (GEAR B)	
238	4-981-923-01	SCREW (M), STEP	
⚠240	8-820-081-09	OPTICAL PICK-UP KHM-220AAA	
241	A-4725-157-A	TK BOARD, COMPLETE	
242	4-951-620-41	SCREW (2.6), +BVTP	
243	4-211-234-01	BRACKET (STOCKER T)	
M701	X-4950-341-1	MOTOR (CLAMP) ASSY (ELEVATOR UP/DOWN)	
S707	1-418-045-01	ENCODER, ROTARY (DISC TRAY ADDRESS DETECT)	

(6) TAPE MECHANISM DECK SECTION-1 (TCM-230AWR12)



Ref. No.	Part No.	Description	Remark
401	3-376-464-11	SCREW(+PTT 2.6X6),GROUND POINT	
402	3-911-116-42	RIVET, PUSH	
403	3-016-574-01	SPRING (HEAD), TENSION	
404	X-3374-156-4	PINCH LEVER (REV) ASSY	
405	X-3374-155-4	PINCH LEVER (FWD) ASSY	
406	3-017-365-01	BASE (PINCH LEVER FWD)	
407	3-017-366-01	BASE (PINCH LEVER REV)	
408	3-016-567-02	SPRING (CASSETTE), LEAF	
409	A-2007-845-A	AUDIO BOARD, COMPLETE	
HP101	A-2004-778-A	BASE (A) ASSY, HEAD	
HRPE101	A-2004-779-A	BASE (B) ASSY, HEAD	

(7) TAPE MECHANISM DECK SECTION-2 (TCM-230AWR12)



Ref. No.	Part No.	Description	Remark
451	X-4952-881-1	CHASSIS ASSY, MAIN	
452	3-041-946-01	BELT (CAPSTAN B)	
453	4-227-239-01	BELT (CAPSTAN C)	
454	3-016-568-01	BRACKET (MOTOR)	
455	X-3378-040-1	FLYWHEEL (A-FWD) ASSY	
456	X-3378-041-1	FLYWHEEL (A-REV) ASSY	
457	X-3374-157-1	PULLEY ASSY, TENSION	
458	3-041-947-01	BELT (FR)	
459	A-2004-752-A	BLOCK (A) ASSY, MECHANICAL	
460	3-016-566-01	SLIDER, REVERSE	

Ref. No.	Part No.	Description	Remark
461	A-2007-838-A	LEAF SW BOARD, COMPLETE	
462	4-228-450-01	SPRING (REVERSE SLIDER),TORSION	
463	3-019-208-01	WASHER, STOPPER	
464	3-027-453-01	SPRING (GROUND), TENSION	
465	3-030-823-01	SCREW (+BVTT) (2X3.5)	
466	A-2004-753-A	BLOCK (B) ASSY, MECHANICAL	
467	X-3378-042-1	FLYWHEEL (B-FWD) ASSY	
468	X-3378-043-1	FLYWHEEL (B-REV) ASSY	
M1	X-3378-241-1	MOTOR ASSY (CAPSTAN/REEL)	

MEMO

SECTION 8
ELECTRICAL PARTS LIST

AUDIO

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Abbreviation

AR	: Argentine model	MX	: Mexican model
AUS	: Australian model	MY	: Malaysia model
CH	: Chinese model	SP	: Singapore model
CND	: Canadian model	TH	: Thai model
EA	: Saudi Arabia model	TW	: Taiwan model
HK	: Hong Kong model		

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

以阴影和 ⚠ 标志来识别的零部件，在安全方面具有关键性．因此只能以规定号码的零部件来更换．

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
	A-2007-845-A	AUDIO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C301	1-162-289-31	CERAMIC	390PF	10%	50V
C302	1-126-968-11	ELECT	100uF	20%	6.3V
C303	1-162-282-31	CERAMIC	100PF	10%	50V
C304	1-130-483-00	MYLAR	0.01uF	5%	50V
C305	1-107-715-11	ELECT	22uF	20%	16V
C311	1-162-289-31	CERAMIC	390PF	10%	50V
C313	1-162-282-31	CERAMIC	100PF	10%	50V
C314	1-130-487-00	MYLAR	0.022uF	5%	50V
C315	1-126-233-11	ELECT	22uF	20%	50V
C331	1-137-427-11	MYLAR	120PF	5%	50V
C332	1-162-288-31	CERAMIC	330PF	10%	50V
C333	1-162-209-31	CERAMIC	27PF	5%	50V
C401	1-162-289-31	CERAMIC	390PF	10%	50V
C402	1-126-968-11	ELECT	100uF	20%	6.3V
C403	1-162-282-31	CERAMIC	100PF	10%	50V
C404	1-130-483-00	MYLAR	0.01uF	5%	50V
C405	1-107-715-11	ELECT	22uF	20%	16V
C411	1-162-289-31	CERAMIC	390PF	10%	50V
C413	1-162-282-31	CERAMIC	100PF	10%	50V
C414	1-130-487-00	MYLAR	0.022uF	5%	50V
C415	1-126-233-11	ELECT	22uF	20%	50V
C431	1-137-427-11	MYLAR	120PF	5%	50V
C432	1-162-288-31	CERAMIC	330PF	10%	50V
C433	1-162-209-31	CERAMIC	27PF	5%	50V
C601	1-104-396-11	ELECT	10uF	20%	16V
C602	1-104-396-11	ELECT	10uF	20%	16V
C611	1-104-396-11	ELECT	10uF	20%	16V
C612	1-104-396-11	ELECT	10uF	20%	16V
C621	1-137-150-11	FILM	0.01uF	5%	100V
C622	1-126-961-11	ELECT	2.2uF	20%	50V
C623	1-136-155-00	FILM	0.015uF	5%	50V
C624	1-130-481-00	MYLAR	0.0068uF	5%	50V
C625	1-130-481-00	MYLAR	0.0068uF	5%	50V
C627	1-124-903-11	ELECT	1uF	20%	50V
C628	1-136-153-00	FILM	0.01uF	5%	50V
C642	1-104-664-11	ELECT	47uF	20%	16V
		< CONNECTOR >			
CN601	1-568-834-21	SOCKET, CONNECTOR 15P			
		< IC >			
IC601	8-759-111-44	IC uPC4570C-1			
IC602	8-759-143-54	IC uPC1330HA			
IC611	8-759-111-44	IC uPC4570C-1			
		< COIL >			
L331	1-410-780-11	INDUCTOR	27mH		
L431	1-410-780-11	INDUCTOR	27mH		
		< TRANSISTOR >			
Q621	8-729-142-46	TRANSISTOR	2SC2001TP-LK		
Q622	8-729-142-46	TRANSISTOR	2SC2001TP-LK		
Q623	8-729-801-93	TRANSISTOR	2SD1387-34-TP		
		< RESISTOR >			
R301	1-247-881-00	CARBON	120K	5%	1/4W
R302	1-249-409-11	CARBON	220	5%	1/4W
R303	1-249-433-11	CARBON	22K	5%	1/4W
R304	1-247-889-00	CARBON	270K	5%	1/4W
R305	1-247-858-11	CARBON	13K	5%	1/4W
R311	1-247-881-00	CARBON	120K	5%	1/4W
R312	1-247-807-31	CARBON	100	5%	1/4W
R314	1-247-882-11	CARBON	130K	5%	1/4W
R315	1-247-850-11	CARBON	6.2K	5%	1/4W
R331	1-249-430-11	CARBON	12K	5%	1/4W
R401	1-247-881-00	CARBON	120K	5%	1/4W
R402	1-249-409-11	CARBON	220	5%	1/4W
R403	1-249-433-11	CARBON	22K	5%	1/4W
R404	1-247-889-00	CARBON	270K	5%	1/4W
R405	1-247-858-11	CARBON	13K	5%	1/4W
R411	1-247-881-00	CARBON	120K	5%	1/4W
R412	1-247-807-31	CARBON	100	5%	1/4W
R414	1-247-882-11	CARBON	130K	5%	1/4W
R415	1-247-850-11	CARBON	6.2K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R431	1-249-430-11	CARBON	12K	5%	1/4W
R601	1-249-409-11	CARBON	220	5%	1/4W
R602	1-249-409-11	CARBON	220	5%	1/4W
R608	1-249-409-11	CARBON	220	5%	1/4W
R609	1-249-433-11	CARBON	22K	5%	1/4W
R611	1-249-409-11	CARBON	220	5%	1/4W
R612	1-249-409-11	CARBON	220	5%	1/4W
⚠R621	1-212-851-00	FUSIBLE	5.6	5%	1/4W F
⚠R622	1-212-851-00	FUSIBLE	5.6	5%	1/4W F
R623	1-249-432-11	CARBON	18K	5%	1/4W
R624	1-249-432-11	CARBON	18K	5%	1/4W
R625	1-249-429-11	CARBON	10K	5%	1/4W
		< VARIABLE RESISTOR >			
RV301	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV311	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV341	1-241-768-11	RES, ADJ, CARBON 220K			
RV401	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV411	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV441	1-241-768-11	RES, ADJ, CARBON 220K			
		< TRANSFORMER >			
T621	1-423-980-11	TRANSFORMER, BIAS OSCILLATION			
**********					
	A-4428-661-A	CD SW BOARD, COMPLETE (EXCEPT TH, CH)			
	A-4473-243-A	CD SW BOARD, COMPLETE (TH)			
	A-4473-825-A	CD SW BOARD, COMPLETE (CH)			
		**********			
		< LED >			
D661	8-719-058-64	LED SEL5823A-TP15 (1)			
D662	8-719-058-64	LED SEL5823A-TP15 (2)			
D663	8-719-058-64	LED SEL5823A-TP15 (3)			
D664	8-719-058-64	LED SEL5823A-TP15 (4)			
D665	8-719-058-64	LED SEL5823A-TP15 (5)			
		< RESISTOR >			
R628	1-249-420-11	CARBON	1.8K	5%	1/4W
R629	1-249-422-11	CARBON	2.7K	5%	1/4W
R630	1-247-843-11	CARBON	3.3K	5%	1/4W
R631	1-249-425-11	CARBON	4.7K	5%	1/4W
R632	1-249-427-11	CARBON	6.8K	5%	1/4W
R633	1-249-429-11	CARBON	10K	5%	1/4W
R634	1-249-431-11	CARBON	15K	5%	1/4W
R635	1-249-434-11	CARBON	27K	5%	1/4W
R636	1-249-438-11	CARBON	56K	5%	1/4W
R661	1-249-409-11	CARBON	220	5%	1/4W
R662	1-249-409-11	CARBON	220	5%	1/4W
R663	1-249-409-11	CARBON	220	5%	1/4W
R664	1-249-409-11	CARBON	220	5%	1/4W
R665	1-249-409-11	CARBON	220	5%	1/4W
		< SWITCH >			
S627	1-762-875-21	SWITCH, KEYBOARD (⏏5)			
S628	1-762-875-21	SWITCH, KEYBOARD (⏏4)			
S629	1-762-875-21	SWITCH, KEYBOARD (⏏3)			
S630	1-762-875-21	SWITCH, KEYBOARD (⏏2)			

Ref. No.	Part No.	Description			Remark
S631	1-762-875-21	SWITCH, KEYBOARD (⏏1)			
S632	1-762-875-21	SWITCH, KEYBOARD (DISC 1)			
S633	1-762-875-21	SWITCH, KEYBOARD (DISC 2)			
S634	1-762-875-21	SWITCH, KEYBOARD (DISC 3)			
S635	1-762-875-21	SWITCH, KEYBOARD (DISC 4)			
S636	1-762-875-21	SWITCH, KEYBOARD (DISC 5)			
**********					
	1-675-729-11	CLAMP MOTOR BOARD			
		**********			
		< CAPACITOR >			
C701	1-162-306-11	CERAMIC	0.01uF	30%	16V
C702	1-126-964-11	ELECT	10uF	20%	50V
C706	1-162-306-11	CERAMIC	0.01uF	30%	16V
C711	1-162-306-11	CERAMIC	0.01uF	30%	16V
C712	1-162-306-11	CERAMIC	0.01uF	30%	16V
		< CONNECTOR >			
* CN712	1-568-954-11	PIN, CONNECTOR 5P			
		< DIODE >			
D701	8-719-983-66	DIODE MTZJ-T-72-3.6B			
		< IC >			
IC701	8-759-633-65	IC M54641L			
		< RESISTOR >			
R701	1-249-411-11	CARBON	330	5%	1/4W
R702	1-249-401-11	CARBON	47	5%	1/4W
**********					
	1-675-722-11	CONNECTOR BOARD			
		**********			
		< CONNECTOR >			
CN701	1-770-169-11	CONNECTOR, FFC/FPC 17P			
		< TRANSISTOR >			
Q701	8-729-029-66	TRANSISTOR RT1N141S-TP			
		< RESISTOR >			
R707	1-249-424-11	CARBON	3.9K	5%	1/4W
R708	1-249-417-11	CARBON	1K	5%	1/4W
R709	1-249-429-11	CARBON	10K	5%	1/4W
**********					

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

以阴影和⚠标志来识别的零部件在安全方面具有关键性。因此只能以规定号码的零部件来更换。

Ref. No.	Part No.	Description			Remark
	A-4428-992-A	FRONT AMP BOARD, COMPLETE (US)			
	A-4473-016-A	FRONT AMP BOARD, COMPLETE (AEP, UK)			
	A-4473-026-A	FRONT AMP BOARD, COMPLETE (EA, MY, SP, HK, TW, AUS)			
	A-4473-668-A	FRONT AMP BOARD, COMPLETE (E, MX, AR)			
	A-4473-687-A	FRONT AMP BOARD, COMPLETE (TH)			
	A-4473-695-A	FRONT AMP BOARD, COMPLETE (CND)			
	A-4473-854-A	FRONT AMP BOARD, COMPLETE (CH)			
		**********			
		< CAPACITOR >			
C801	1-126-963-11	ELECT	4.7uF	20%	50V (EXCEPT US, CND)
C801	1-128-581-11	ELECT	4.7uF	20%	100V (US, CND)
C802	1-162-286-31	CERAMIC	220PF	10%	50V
C803	1-162-282-31	CERAMIC	100PF	10%	50V
C804	1-104-664-11	ELECT	47uF	20%	10V
C806	1-136-495-11	MYLAR	0.068uF	5%	50V
C807	1-136-495-11	MYLAR	0.068uF	5%	50V
C808	1-136-165-00	MYLAR	0.1uF	5%	50V (AEP, UK, CH)
C809	1-136-165-00	MYLAR	0.1uF	5%	50V (AEP, UK, CH)
C811	1-162-306-11	CERAMIC	0.01uF	30%	16V
C812	1-162-306-11	CERAMIC	0.01uF	30%	16V
C821	1-107-721-11	ELECT	4.7uF	20%	100V
C822	1-107-717-11	ELECT	47uF	20%	50V
C831	1-136-165-00	MYLAR	0.1uF	5%	50V (AEP, UK, CH)
C832	1-136-165-00	MYLAR	0.1uF	5%	50V (AEP, UK, CH)
C833	1-136-165-00	MYLAR	0.1uF	5%	50V (AEP, UK, CH)
C834	1-136-165-00	MYLAR	0.1uF	5%	50V (AEP, UK, CH)
C835	1-136-165-00	MYLAR	0.1uF	5%	50V (AEP, UK, CH)
C836	1-136-165-00	MYLAR	0.1uF	5%	50V (AEP, UK, CH)
C837	1-126-963-11	ELECT	4.7uF	20%	50V
C851	1-126-963-11	ELECT	4.7uF	20%	50V (EXCEPT US, CND)
C851	1-128-581-11	ELECT	4.7uF	20%	100V (US, CND)
C852	1-162-286-31	CERAMIC	220PF	10%	50V
C853	1-162-282-31	CERAMIC	100PF	10%	50V
C854	1-104-664-11	ELECT	47uF	20%	10V
C856	1-136-495-11	MYLAR	0.068uF	5%	50V
C857	1-136-495-11	MYLAR	0.068uF	5%	50V
C858	1-136-165-00	MYLAR	0.1uF	5%	50V (AEP, UK, CH)
C859	1-136-165-00	MYLAR	0.1uF	5%	50V (AEP, UK, CH)
C861	1-162-306-11	CERAMIC	0.01uF	30%	16V
C862	1-162-306-11	CERAMIC	0.01uF	30%	16V
C863	1-162-306-11	CERAMIC	0.01uF	30%	16V
C864	1-162-306-11	CERAMIC	0.01uF	30%	16V
C865	1-162-306-11	CERAMIC	0.01uF	30%	16V
C871	1-107-721-11	ELECT	4.7uF	20%	100V
C872	1-126-959-11	ELECT	0.47uF	20%	50V
C891	1-104-665-11	ELECT	100uF	20%	10V
C892	1-126-961-11	ELECT	2.2uF	20%	50V
C893	1-104-665-11	ELECT	100uF	20%	10V
C911	1-130-777-00	MYLAR	0.1uF	10%	100V
C912	1-130-777-00	MYLAR	0.1uF	10%	100V
C951	1-127-753-11	ELECT	3300uF	20%	71V (EXCEPT US, CND, AEP, UK)
C951	1-135-516-11	ELECT	3300uF	20%	63V (US, CND, AEP, UK)
C952	1-127-753-11	ELECT	3300uF	20%	71V (EXCEPT US, CND, AEP, UK)
C952	1-135-516-11	ELECT	3300uF	20%	63V (US, CND, AEP, UK)
C953	1-135-515-11	ELECT	3300uF	20%	50V
C954	1-135-515-11	ELECT	3300uF	20%	50V
C955	1-136-165-00	MYLAR	0.1uF	5%	50V
C956	1-136-165-00	MYLAR	0.1uF	5%	50V
C961	1-128-560-11	ELECT	22uF	20%	100V
C962	1-128-560-11	ELECT	22uF	20%	100V
C963	1-126-968-11	ELECT	100uF	20%	50V
C964	1-126-967-11	ELECT	47uF	20%	50V
C981	1-128-564-11	ELECT	220uF	20%	100V
C982	1-126-964-11	ELECT	10uF	20%	50V
C983	1-126-967-11	ELECT	47uF	20%	50V
C984	1-164-159-11	CERAMIC	0.1uF		50V
C991	1-136-165-00	MYLAR	0.1uF	5%	50V
C992	1-136-165-00	MYLAR	0.1uF	5%	50V
C993	1-136-165-00	MYLAR	0.1uF	5%	50V
C994	1-136-165-00	MYLAR	0.1uF	5%	50V
		< CONNECTOR >			
CN801	1-691-768-11	PLUG (MICRO CONNECTOR) 6P			
CN803	1-778-982-21	CONNECTOR, BOARD TO BOARD 13P			
CN804	1-778-982-21	CONNECTOR, BOARD TO BOARD 13P			
		< DIODE >			
D801	8-719-911-19	DIODE 1SS133T-72			
D802	8-719-911-19	DIODE 1SS133T-72			
D821	8-719-911-19	DIODE 1SS133T-72			
D831	8-719-911-19	DIODE 1SS133T-72			
D851	8-719-911-19	DIODE 1SS133T-72			
D871	8-719-911-19	DIODE 1SS133T-72			
D881	8-719-911-19	DIODE 1SS133T-72			
D911	8-719-302-37	DIODE RBV-602			
D951	8-719-302-37	DIODE RBV-602			
D961	8-719-947-58	DIODE MTZJ-T-72-13C			
D962	8-719-947-58	DIODE MTZJ-T-72-13C			
D963	8-719-911-19	DIODE 1SS133T-72			
D981	8-719-024-99	DIODE 11ES2-NTA2B			
D982	8-719-079-21	DIODE MTZJ-T-72-20D			
D983	8-719-079-21	DIODE MTZJ-T-72-20D			
D984	8-719-160-56	DIODE RD12F-T7B2			
D991	8-719-024-99	DIODE 11ES2-NTA2B			
D992	8-719-024-99	DIODE 11ES2-NTA2B			
D993	8-719-024-99	DIODE 11ES2-NTA2B			
D994	8-719-024-99	DIODE 11ES2-NTA2B			
D995	8-719-024-99	DIODE 11ES2-NTA2B			

FRONT AMP

Ref. No.	Part No.	Description	Remark
D996	8-719-024-99	DIODE 11ES2-NTA2B	
D997	8-719-024-99	DIODE 11ES2-NTA2B	
D998	8-719-024-99	DIODE 11ES2-NTA2B	
		< EARTH TERMINAL >	
* EPT951	1-537-738-21	TERMINAL, EARTH	
		< IC >	
IC801	8-749-017-03	IC STK412-020 (EXCEPT US, CND, AEP, UK)	
IC801	8-749-017-01	IC STK412-000 (US, CND, AEP, UK)	
		< COIL >	
L811	1-420-872-00	COIL, AIR-CORE (AEP, UK, CH)	
L831	1-420-872-00	COIL, AIR-CORE (AEP, UK, CH)	
L832	1-420-872-00	COIL, AIR-CORE (AEP, UK, CH)	
L833	1-420-872-00	COIL, AIR-CORE (AEP, UK, CH)	
L861	1-420-872-00	COIL, AIR-CORE (AEP, UK, CH)	
		< TRANSISTOR >	
Q801	8-729-140-84	TRANSISTOR 2SC1841TP-PAFAEA	
Q821	8-729-231-55	TRANSISTOR 2SC2878AB-TPE2	
Q822	8-729-900-63	TRANSISTOR BN1F4M-TP	
Q851	8-729-140-84	TRANSISTOR 2SC1841TP-PAFAEA	
Q871	8-729-231-55	TRANSISTOR 2SC2878AB-TPE2	
Q881	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q883	8-729-119-78	TRANSISTOR 2SC2785TP-HFE	
Q891	8-729-140-84	TRANSISTOR 2SC1841TP-PAFAEA	
Q892	8-729-140-84	TRANSISTOR 2SC1841TP-PAFAEA	
Q893	8-729-140-82	TRANSISTOR 2SA988TP-PAFAEA	
Q894	8-729-119-78	TRANSISTOR 2SC2785TP-HFE	
Q895	8-729-119-78	TRANSISTOR 2SC2785TP-HFE	
Q896	8-729-119-78	TRANSISTOR 2SC2785TP-HFE	
Q897	8-729-119-78	TRANSISTOR 2SC2785TP-HFE	
Q961	8-729-140-84	TRANSISTOR 2SC1841TP-PAFAEA	
Q962	8-729-140-82	TRANSISTOR 2SA1376-T-L	
Q963	8-729-140-84	TRANSISTOR 2SC1841TP-PAFAEA	
Q981	8-729-048-52	TRANSISTOR 2SA1932 (TP)	
		< RESISTOR >	
R801	1-249-417-11	CARBON 1K 5% 1/4W	
R802	1-249-438-11	CARBON 56K 5% 1/4W	
R803	1-249-414-11	CARBON 560 5% 1/4W	(EXCEPT US, CND, AEP, UK)
R803	1-249-415-11	CARBON 680 5% 1/4W	(US, CND, AEP, UK)
R804	1-249-438-11	CARBON 56K 5% 1/4W	
⚠R805	1-234-499-21	ENCAPSULATED COMPONENT	
R806	1-249-417-11	CARBON 1K 5% 1/4W	
R807	1-249-431-11	CARBON 15K 5% 1/4W	
R808	1-249-441-11	CARBON 100K 5% 1/4W	
R809	1-260-076-11	CARBON 10 5% 1/2W	
R811	1-260-076-11	CARBON 10 5% 1/2W	(AEP, UK, CH)
R812	1-260-076-11	CARBON 10 5% 1/2W	(AEP, UK, CH)
R814	1-249-437-11	CARBON 47K 5% 1/4W	
R815	1-249-437-11	CARBON 47K 5% 1/4W	
R821	1-260-089-11	CARBON 150 5% 1/2W	

Ref. No.	Part No.	Description	Remark
R822	1-260-089-11	CARBON 150 5% 1/2W	
R823	1-260-089-11	CARBON 150 5% 1/2W	
R824	1-260-089-11	CARBON 150 5% 1/2W	
R825	1-249-402-11	CARBON 56 5% 1/4W	
R826	1-249-417-11	CARBON 1K 5% 1/4W	
R827	1-249-433-11	CARBON 22K 5% 1/4W	
R828	1-249-417-11	CARBON 1K 5% 1/4W	
R829	1-249-437-11	CARBON 47K 5% 1/4W	
R830	1-249-417-11	CARBON 1K 5% 1/4W	
R831	1-260-076-11	CARBON 10 5% 1/2W	(AEP, UK, CH)
R832	1-260-076-11	CARBON 10 5% 1/2W	(AEP, UK, CH)
R833	1-260-076-11	CARBON 10 5% 1/2W	(AEP, UK, CH)
R834	1-260-076-11	CARBON 10 5% 1/2W	(AEP, UK, CH)
R835	1-260-076-11	CARBON 10 5% 1/2W	(AEP, UK, CH)
R836	1-260-076-11	CARBON 10 5% 1/2W	(AEP, UK, CH)
R837	1-249-437-11	CARBON 47K 5% 1/4W	
R838	1-249-437-11	CARBON 47K 5% 1/4W	
R839	1-249-437-11	CARBON 47K 5% 1/4W	
R851	1-249-417-11	CARBON 1K 5% 1/4W	
R852	1-249-438-11	CARBON 56K 5% 1/4W	
R853	1-249-414-11	CARBON 560 5% 1/4W	(EXCEPT US, CND, AEP, UK)
R853	1-249-415-11	CARBON 680 5% 1/4W	(US, CND, AEP, UK)
R854	1-249-438-11	CARBON 56K 5% 1/4W	
⚠R855	1-234-499-21	ENCAPSULATED COMPONENT	
R856	1-249-417-11	CARBON 1K 5% 1/4W	
R857	1-249-431-11	CARBON 15K 5% 1/4W	
R858	1-249-441-11	CARBON 100K 5% 1/4W	
R859	1-260-076-11	CARBON 10 5% 1/2W	
R861	1-260-076-11	CARBON 10 5% 1/2W	(AEP, UK, CH)
R862	1-260-076-11	CARBON 10 5% 1/2W	(AEP, UK, CH)
R871	1-260-089-11	CARBON 150 5% 1/2W	
R872	1-260-089-11	CARBON 150 5% 1/2W	
R873	1-260-089-11	CARBON 150 5% 1/2W	
R874	1-260-089-11	CARBON 150 5% 1/2W	
R875	1-249-402-11	CARBON 56 5% 1/4W	
R876	1-249-417-11	CARBON 1K 5% 1/4W	
R877	1-249-433-11	CARBON 22K 5% 1/4W	
R878	1-249-417-11	CARBON 1K 5% 1/4W	
R879	1-249-441-11	CARBON 100K 5% 1/4W	
R880	1-247-903-00	CARBON 1M 5% 1/4W	
⚠R881	1-215-889-00	METAL OXIDE 330 5% 2W	F
R883	1-249-437-11	CARBON 47K 5% 1/4W	
R885	1-249-429-11	CARBON 10K 5% 1/4W	
R887	1-249-441-11	CARBON 100K 5% 1/4W	
R889	1-249-429-11	CARBON 10K 5% 1/4W	
R891	1-249-438-11	CARBON 56K 5% 1/4W	
R892	1-249-439-11	CARBON 68K 5% 1/4W	
R894	1-249-429-11	CARBON 10K 5% 1/4W	
R895	1-249-429-11	CARBON 10K 5% 1/4W	
R896	1-249-435-11	CARBON 33K 5% 1/4W	

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Ne les remplacer que par une pièce portant le numéro spécifié.

以阴影和⚠标志来识别的零部件在安全方面具有关键性。因此只能以规定号码的零部件来更换。

Ref. No.	Part No.	Description			Remark
R897	1-249-433-11	CARBON	22K	5%	1/4W
R898	1-249-425-11	CARBON	4.7K	5%	1/4W
R900	1-249-425-11	CARBON	4.7K	5%	1/4W
⚠R951	1-215-877-11	METAL OXIDE	22K	5%	1W F (E, MX, AR, AUS)
⚠R952	1-215-877-11	METAL OXIDE	22K	5%	1W F (E, MX, AR, AUS)
R961	1-215-870-11	METAL OXIDE	1.5K	5%	1W
R962	1-215-870-11	METAL OXIDE	1.5K	5%	1W
⚠R963	1-212-881-11	FUSIBLE	100	5%	1/4W F
⚠R964	1-212-881-11	FUSIBLE	100	5%	1/4W F
R965	1-249-431-11	CARBON	15K	5%	1/4W
R966	1-249-435-11	CARBON	33K	5%	1/4W
R967	1-249-435-11	CARBON	33K	5%	1/4W
⚠R968	1-202-972-61	FUSIBLE	1	5%	1/4W F
R969	1-249-439-11	CARBON	68K	5%	1/4W
R970	1-249-433-11	CARBON	22K	5%	1/4W
R971	1-249-421-11	CARBON	2.2K	5%	1/4W
R972	1-249-433-11	CARBON	22K	5%	1/4W
R973	1-249-421-11	CARBON	2.2K	5%	1/4W
R974	1-249-429-11	CARBON	10K	5%	1/4W
R982	1-249-427-11	CARBON	6.8K	5%	1/4W
R983	1-249-421-11	CARBON	2.2K	5%	1/4W
R984	1-249-429-11	CARBON	10K	5%	1/4W
		< RELAY >			
RY881	1-755-141-11	RELAY			
		< TERMINAL >			
TM801	1-694-677-11	TERMINAL BOARD (4P) (FRONT SPEAKER, IMPEDANCE USE 8-16Ω)			
TM802	1-694-674-11	TERMINAL BOARD (6P) (REAR/CENTER SPEAKER, IMPEDANCE USE 8-16Ω)			
**********					
	1-676-971-11	HP BOARD			
		*********			
		< CAPACITOR >			
C1691	1-162-294-31	CERAMIC	0.001uF	10%	50V
C1692	1-162-294-31	CERAMIC	0.001uF	10%	50V
C1693	1-164-159-11	CERAMIC	0.1uF		50V
		< CONNECTOR >			
CN1691	1-785-316-51	PIN, CONNECTOR (STRAIGHT) 4P			
		< EARTH TERMINAL >			
* EPT1691	1-537-738-21	TERMINAL, EARTH			
		< INDUCTOR >			
FB1691	1-412-473-21	INDUCTOR	0uH		
FB1692	1-412-473-21	INDUCTOR	0uH		
FB1693	1-412-473-21	INDUCTOR	0uH		
		< JACK >			
J1691	1-793-829-11	JACK, HEADPHONE (PHONES)			
**********					

Ref. No.	Part No.	Description			Remark
	A-4473-238-A	IF BOARD, COMPLETE (EXCEPT TH, CH)			
	A-4473-693-A	IF BOARD, COMPLETE (TH)			
	A-4473-860-A	IF BOARD, COMPLETE (CH)			
		**********			
		< CAPACITOR >			
C1	1-124-779-00	ELECT CHIP	10uF	20%	16V
C2	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C4	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C5	1-115-464-91	CERAMIC CHIP	0.0022uF	10%	630V
C6	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C8	1-163-031-11	CERAMIC CHIP	0.01uF		50V
		< CONNECTOR >			
CN1	1-784-369-21	CONNECTOR, FFC/FPC 10P			
CN3	1-770-215-11	PIN, CONNECTOR (PC BOARD) 7P			
CN5	1-793-991-11	CONNECTOR, FFC/FPC 23P			
CN6	1-793-991-11	CONNECTOR, FFC/FPC 23P			
CN7	1-793-989-11	CONNECTOR, FFC/FPC 13P			
CN8	1-793-989-11	CONNECTOR, FFC/FPC 13P			
CN9	1-784-376-11	CONNECTOR, FFC/FPC 17P			
CN10	1-784-869-21	CONNECTOR, FFC (LIF (NON-ZIF)) 17P			
CN11	1-793-687-31	PIN, CONNECTOR (1.5mm) (SMD) 5P			
CN12	1-793-687-31	PIN, CONNECTOR (1.5mm) (SMD) 5P			
CN13	1-793-687-11	PIN, CONNECTOR (1.5mm) (SMD) 5P			
CN14	1-793-687-11	PIN, CONNECTOR (1.5mm) (SMD) 5P			
		< FERRITE BEAD >			
FB1	1-414-813-11	FERRITE	0uH		
FB2	1-414-813-11	FERRITE	0uH		
FB3	1-414-813-11	FERRITE	0uH		
		< IC >			
IC1	8-759-669-93	IC uPD784215AYGF-514-3BA			
IC2	8-759-497-44	IC TC7WH125FU (TE12R)			
		< RESISTOR >			
JR1	1-216-295-00	SHORT	0		
JR3	1-216-295-00	SHORT	0		
JR4	1-216-295-00	SHORT	0		
JR5	1-216-295-00	SHORT	0		
JR6	1-216-295-00	SHORT	0		
JR7	1-216-295-00	SHORT	0		
JR8	1-216-295-00	SHORT	0		
JR9	1-216-295-00	SHORT	0		
JR10	1-216-089-00	RES-CHIP	47K	5%	1/10W
JR11	1-216-296-00	SHORT	0		
JR14	1-216-296-00	SHORT	0		
JR15	1-216-296-00	SHORT	0		
JR16	1-216-296-00	SHORT	0		
JR17	1-216-296-00	SHORT	0		
JR18	1-216-296-00	SHORT	0		
JR19	1-216-296-00	SHORT	0		
JR20	1-216-296-00	SHORT	0		
JR23	1-216-296-00	SHORT	0		
JR24	1-216-296-00	SHORT	0		
JR25	1-216-296-00	SHORT	0		

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Ne les remplacer que par une pièce portant le neméro spécifié.

以阴影和⚠标志来识别的零部件在安全方面具有关键性。因此只能以规定号码的零部件来更换。

IF | INIT/COUNT SW | IN SW | LEAF SW

Ref. No.	Part No.	Description			Remark
JR26	1-216-296-00	SHORT	0		
JR27	1-216-296-00	SHORT	0		
JR28	1-216-296-00	SHORT	0		
JR29	1-216-296-00	SHORT	0		
JR30	1-216-296-00	SHORT	0		
JR31	1-216-296-00	SHORT	0		
JR32	1-216-296-00	SHORT	0		
JR33	1-216-296-00	SHORT	0		
JR34	1-216-296-00	SHORT	0		
JR35	1-216-296-00	SHORT	0		
JR36	1-216-296-00	SHORT	0		
JR37	1-216-296-00	SHORT	0		
JR38	1-216-296-00	SHORT	0		
JR39	1-216-296-00	SHORT	0		
JR40	1-216-296-00	SHORT	0		
JR41	1-216-296-00	SHORT	0		
JR42	1-216-296-00	SHORT	0		
JR43	1-216-296-00	SHORT	0		
		< TRANSISTOR >			
Q1	8-729-027-31	TRANSISTOR	DTA124EKA-T146		
Q2	8-729-025-28	FET	2SK1828TE85L		
Q3	8-729-025-28	FET	2SK1828TE85L		
Q4	8-729-025-28	FET	2SK1828TE85L		
		< RESISTOR >			
R1	1-216-174-00	RES-CHIP	100	5%	1/8W
R2	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3	1-216-097-00	RES-CHIP	100K	5%	1/10W
R4	1-216-073-00	METAL CHIP	10K	5%	1/10W
R5	1-216-089-00	RES-CHIP	47K	5%	1/10W
R6	1-216-025-00	RES-CHIP	100	5%	1/10W
R7	1-216-073-00	METAL CHIP	10K	5%	1/10W
R8	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R9	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R10	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R11	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R17	1-216-073-00	METAL CHIP	10K	5%	1/10W
R18	1-216-073-00	METAL CHIP	10K	5%	1/10W
R19	1-216-222-00	RES-CHIP	10K	5%	1/8W
R20	1-216-073-00	METAL CHIP	10K	5%	1/10W
R21	1-216-097-00	RES-CHIP	100K	5%	1/10W
R22	1-216-073-00	METAL CHIP	10K	5%	1/10W
R30	1-216-198-00	RES-CHIP	1K	5%	1/8W
R31	1-216-097-00	RES-CHIP	100K	5%	1/10W
R32	1-216-198-00	RES-CHIP	1K	5%	1/8W
R33	1-216-097-00	RES-CHIP	100K	5%	1/10W
R34	1-216-049-11	RES-CHIP	1K	5%	1/10W
R35	1-216-097-00	RES-CHIP	100K	5%	1/10W
R44	1-216-025-00	RES-CHIP	100	5%	1/10W
R48	1-216-097-00	RES-CHIP	100K	5%	1/10W
R49	1-216-025-00	RES-CHIP	100	5%	1/10W
R50	1-216-073-00	METAL CHIP	10K	5%	1/10W
R60	1-216-174-00	RES-CHIP	100	5%	1/8W
R68	1-216-025-00	RES-CHIP	100	5%	1/10W

Ref. No.	Part No.	Description			Remark
		< COMPOSITION CIRCUIT BLOCK >			
RB1	1-233-576-11	RES, CHIP NETWORK 100			
RB2	1-233-810-21	RES, NETWORK 100K (3216)			
RB3	1-233-576-11	RES, CHIP NETWORK 100			
		< VIBRATOR >			
X1	1-781-893-21	VIBRATOR, CERAMIC (CHIP TYPE) (12.5MHz)			
**********					
	1-675-724-11	INIT/COUNT SW BOARD			
		**********			
		< SWITCH >			
S705	1-771-264-11	SWITCH, PUSH (DETECTION) (1 KEY) (INIT)			
S706	1-771-264-11	SWITCH, PUSH (DETECTION) (1 KEY) (COUNT)			
**********					
	1-675-723-11	IN SW BOARD			
		**********			
		< CONNECTOR >			
* CN710	1-568-941-11	PIN, CONNECTOR 3P			
		< SWITCH >			
S703	1-771-218-11	SWITCH, MICRO (MID IN)			
S704	1-771-218-11	SWITCH, MICRO (IN)			
**********					
	A-2007-838-A	LEAF SW BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C1001	1-107-716-11	ELECT	33uF	20%	10V
		< CONNECTOR >			
CN1001	1-568-860-21	SOCKET, CONNECTOR 17P			
		< DIODE >			
D1001	8-719-911-19	DIODE 1SS133T-72			
D1002	8-719-911-19	DIODE 1SS133T-72			
		< PHOTO INTERRUPTER >			
IC1001	8-749-014-38	PHOTO INTERRUPTER SG-264			
IC1002	8-749-014-38	PHOTO INTERRUPTER SG-264			
		< TRANSISTOR >			
Q1001	8-729-029-56	TRANSISTOR	DTA144ESA-TP		
		< RESISTOR >			
R907	1-247-879-11	CARBON	100K	5%	1/4W
R1001	1-249-409-11	CARBON	220	5%	1/4W
R1002	1-249-409-11	CARBON	220	5%	1/4W
R1003	1-249-414-11	CARBON	560	5%	1/4W
R1004	1-247-834-11	CARBON	1.3K	5%	1/4W
R1005	1-247-818-11	CARBON	300	5%	1/4W
R1006	1-247-864-11	CARBON	24K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R1007	1-247-780-00	CARBON	7.5	5%	1/4W
R1008	1-249-417-11	CARBON	1K	5%	1/4W
		< VARIABLE RESISTOR >			
RV1001	1-241-785-11	RES, ADJ, CARBON 10K			
RV1002	1-241-785-11	RES, ADJ, CARBON 10K			
		< SWITCH >			
S1001	1-570-953-11	SWITCH, PUSH (1 KEY) (A PLAY)			
S1002	1-570-953-11	SWITCH, PUSH (1 KEY) (B PLAY)			
S1003	1-771-333-11	SWITCH, LEAF (A HALF)			
S1004	1-771-205-11	SWITCH, LEAF (A 120/70)			
S1005	1-771-205-11	SWITCH, LEAF (REC A)			
S1006	1-771-333-11	SWITCH, LEAF (B HALF)			
S1008	1-771-205-11	SWITCH, LEAF (B 120/70)			
S1009	1-771-205-11	SWITCH, LEAF (REC B)			
**********					
	1-675-728-11	LOAD MOTOR BOARD			
		**********			
		< CAPACITOR >			
C703	1-162-306-11	CERAMIC	0.01uF	30%	16V
C704	1-126-964-11	ELECT	10uF	20%	50V
C705	1-162-306-11	CERAMIC	0.01uF	30%	16V
		< CONNECTOR >			
* CN713	1-568-954-11	PIN, CONNECTOR 5P			
		< DIODE >			
D702	8-719-109-85	DIODE MTZJ-T-72-5.1B			
		< IC >			
IC702	8-759-633-65	IC M54641L			
		< RESISTOR >			
R703	1-249-411-11	CARBON	330	5%	1/4W
R704	1-249-401-11	CARBON	47	5%	1/4W
**********					
	A-4428-997-A	MAIN BOARD, COMPLETE (US, CND)			
	A-4473-019-A	MAIN BOARD, COMPLETE (AEP, UK)			
	A-4473-029-A	MAIN BOARD, COMPLETE (MY, SP, HK, TW)			
	A-4473-670-A	MAIN BOARD, COMPLETE (E, MX, AR)			
	A-4473-674-A	MAIN BOARD, COMPLETE (EA)			
	A-4473-690-A	MAIN BOARD, COMPLETE (TH)			
	A-4473-857-A	MAIN BOARD, COMPLETE (CH)			
	A-4475-123-A	MAIN BOARD, COMPLETE (AUS)			
		**********			
	4-875-327-31	HEAT SINK			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S			
		< CAPACITOR/SHORT >			
C103	1-126-960-11	ELECT	1uF	20%	50V
C107	1-136-157-00	MYLAR	0.022uF	5%	50V
C108	1-136-157-00	MYLAR	0.022uF	5%	50V
C109	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C110	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V

Ref. No.	Part No.	Description			Remark
C111	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C112	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C113	1-126-964-11	ELECT	10uF	20%	50V
C114	1-136-495-11	MYLAR	0.068uF	5%	50V
C115	1-130-481-00	MYLAR	0.0068uF	5%	50V
C116	1-130-481-00	MYLAR	0.0068uF	5%	50V
C117	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C118	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C119	1-136-159-00	MYLAR	0.033uF	5%	50V
C120	1-126-964-11	ELECT	10uF	20%	50V
C121	1-126-964-11	ELECT	10uF	20%	50V
C122	1-136-165-00	MYLAR	0.1uF	5%	50V
C123	1-136-165-00	MYLAR	0.1uF	5%	50V
C124	1-126-960-11	ELECT	1uF	20%	50V
C125	1-104-665-11	ELECT	100uF	20%	10V
C126	1-136-165-00	MYLAR	0.1uF	5%	50V
C127	1-104-664-11	ELECT	47uF	20%	16V
C128	1-104-664-11	ELECT	47uF	20%	16V
C129	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C132	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C133	1-126-964-11	ELECT	10uF	20%	50V
C137	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C142	1-163-001-11	CERAMIC CHIP	220PF	10%	50V (AEP, UK, CH)
C144	1-163-001-11	CERAMIC CHIP	220PF	10%	50V (AEP, UK, CH)
C146	1-163-001-11	CERAMIC CHIP	220PF	10%	50V (AEP, UK, CH)
C153	1-126-960-11	ELECT	1uF	20%	50V
C155	1-126-964-11	ELECT	10uF	20%	50V
C157	1-136-157-00	MYLAR	0.022uF	5%	50V
C158	1-136-157-00	MYLAR	0.022uF	5%	50V
C159	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C160	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C161	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C162	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C163	1-126-964-11	ELECT	10uF	20%	50V
C164	1-136-495-11	MYLAR	0.068uF	5%	50V
C165	1-130-481-00	MYLAR	0.0068uF	5%	50V
C166	1-130-481-00	MYLAR	0.0068uF	5%	50V
C167	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C168	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C169	1-136-159-00	MYLAR	0.033uF	5%	50V
C170	1-126-964-11	ELECT	10uF	20%	50V
C171	1-126-964-11	ELECT	10uF	20%	50V
C172	1-136-165-00	MYLAR	0.1uF	5%	50V
C173	1-136-165-00	MYLAR	0.1uF	5%	50V
C174	1-126-960-11	ELECT	1uF	20%	50V
C175	1-104-665-11	ELECT	100uF	20%	10V
C181	1-109-889-11	ELECT	1uF	20%	50V
C192	1-163-001-11	CERAMIC CHIP	220PF	10%	50V (AEP, UK, CH)
C194	1-163-001-11	CERAMIC CHIP	220PF	10%	50V (AEP, UK, CH)
C196	1-163-001-11	CERAMIC CHIP	220PF	10%	50V (AEP, UK, CH)
C197	1-216-295-00	SHORT	0		
C201	1-126-960-11	ELECT	1uF	20%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C202	1-126-960-11	ELECT	1uF	20%	50V
C203	1-126-959-11	ELECT	0.47uF	20%	50V
C204	1-126-959-11	ELECT	0.47uF	20%	50V
C205	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C206	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C207	1-126-959-11	ELECT	0.47uF	20%	50V
C208	1-126-959-11	ELECT	0.47uF	20%	50V
C209	1-126-959-11	ELECT	0.47uF	20%	50V
C210	1-126-959-11	ELECT	0.47uF	20%	50V
C211	1-126-959-11	ELECT	0.47uF	20%	50V
C212	1-126-959-11	ELECT	0.47uF	20%	50V
C213	1-136-165-00	MYLAR	0.1uF	5%	50V
C214	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C216	1-126-960-11	ELECT	1uF	20%	50V
C217	1-130-479-00	MYLAR	0.0047uF	5%	50V
C218	1-130-471-00	MYLAR	0.001uF	5%	50V
C219	1-136-165-00	MYLAR	0.1uF	5%	50V
C220	1-136-169-00	MYLAR	0.22uF	5%	50V
C221	1-136-169-00	MYLAR	0.22uF	5%	50V
C222	1-136-165-00	MYLAR	0.1uF	5%	50V
C223	1-130-479-00	MYLAR	0.0047uF	5%	50V
C224	1-130-471-00	MYLAR	0.001uF	5%	50V
C225	1-126-960-11	ELECT	1uF	20%	50V
C226	1-130-480-00	MYLAR	0.0056uF	5%	50V
C227	1-136-161-00	MYLAR	0.047uF	5%	50V
C228	1-136-175-00	MYLAR	0.68uF	5%	50V
C229	1-136-169-00	MYLAR	0.22uF	5%	50V
C230	1-136-169-00	MYLAR	0.22uF	5%	50V
C231	1-126-963-11	ELECT	4.7uF	20%	50V
C232	1-126-963-11	ELECT	4.7uF	20%	50V
C233	1-136-169-00	MYLAR	0.22uF	5%	50V
C234	1-136-169-00	MYLAR	0.22uF	5%	50V
C235	1-136-165-00	MYLAR	0.1uF	5%	50V
C236	1-136-161-00	MYLAR	0.047uF	5%	50V
C237	1-136-161-00	MYLAR	0.047uF	5%	50V
C238	1-136-165-00	MYLAR	0.1uF	5%	50V
C239	1-136-165-00	MYLAR	0.1uF	5%	50V
C240	1-136-157-00	MYLAR	0.022uF	5%	50V
C241	1-136-157-00	MYLAR	0.022uF	5%	50V
C242	1-136-165-00	MYLAR	0.1uF	5%	50V
C243	1-130-469-00	MYLAR	680PF	5%	50V
C244	1-136-153-00	FILM	0.01uF	5%	50V
C245	1-136-153-00	FILM	0.01uF	5%	50V
C246	1-130-469-00	MYLAR	680PF	5%	50V
C247	1-136-153-00	FILM	0.01uF	5%	50V
C248	1-136-153-00	FILM	0.01uF	5%	50V
C249	1-104-664-11	ELECT	47uF	20%	16V
C250	1-130-481-00	MYLAR	0.0068uF	5%	50V
C251	1-126-963-11	ELECT	4.7uF	20%	50V
C252	1-126-934-11	ELECT	220uF	20%	16V
C253	1-126-934-11	ELECT	220uF	20%	16V
C255	1-126-964-11	ELECT	10uF	20%	50V
C256	1-126-964-11	ELECT	10uF	20%	50V
C257	1-126-964-11	ELECT	10uF	20%	50V
C258	1-126-964-11	ELECT	10uF	20%	50V
C259	1-126-964-11	ELECT	10uF	20%	50V
C260	1-126-964-11	ELECT	10uF	20%	50V

Ref. No.	Part No.	Description			Remark
C261	1-126-964-11	ELECT	10uF	20%	50V
C264	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C266	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C267	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C268	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C269	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C270	1-136-162-00	MYLAR	0.056uF	5%	50V
C271	1-126-960-11	ELECT	1uF	20%	50V
C272	1-126-960-11	ELECT	1uF	20%	50V
C273	1-126-960-11	ELECT	1uF	20%	50V
C274	1-126-960-11	ELECT	1uF	20%	50V
C287	1-216-295-00	SHORT	0		
C301	1-126-960-11	ELECT	1uF	20%	50V
C302	1-130-479-00	MYLAR	0.0047uF	5%	50V
C303	1-136-165-00	MYLAR	0.1uF	5%	50V
C304	1-136-165-00	MYLAR	0.1uF	5%	50V
C305	1-126-964-11	ELECT	10uF	20%	50V
C306	1-126-960-11	ELECT	1uF	20%	50V
C307	1-126-959-11	ELECT	0.47uF	20%	50V
C308	1-126-964-11	ELECT	10uF	20%	50V
C309	1-137-194-81	MYLAR	0.47uF	5%	50V
C310	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C311	1-126-964-11	ELECT	10uF	20%	50V
C312	1-126-959-11	ELECT	0.47uF	20%	50V
C313	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C314	1-126-964-11	ELECT	10uF	20%	50V
C315	1-126-963-11	ELECT	4.7uF	20%	50V
C316	1-126-933-11	ELECT	100uF	20%	16V
C317	1-104-665-11	ELECT	100uF	20%	10V
C318	1-126-959-11	ELECT	0.47uF	20%	50V
C319	1-126-959-11	ELECT	0.47uF	20%	50V
C321	1-126-964-11	ELECT	10uF	20%	50V
C322	1-126-964-11	ELECT	10uF	20%	50V
C351	1-126-960-11	ELECT	1uF	20%	50V
C352	1-130-479-00	MYLAR	0.0047uF	5%	50V
C353	1-136-165-00	MYLAR	0.1uF	5%	50V
C354	1-136-165-00	MYLAR	0.1uF	5%	50V
C355	1-126-964-11	ELECT	10uF	20%	50V
C356	1-126-960-11	ELECT	1uF	20%	50V
C357	1-126-959-11	ELECT	0.47uF	20%	50V
C358	1-126-964-11	ELECT	10uF	20%	50V
C359	1-137-194-81	MYLAR	0.47uF	5%	50V
C360	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C362	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C363	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C368	1-126-959-11	ELECT	0.47uF	20%	50V
C369	1-126-959-11	ELECT	0.47uF	20%	50V
C410	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C411	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C414	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C416	1-126-916-11	ELECT	1000uF	20%	6.3V
C462	1-104-665-11	ELECT	100uF	20%	10V
C464	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C497	1-126-964-11	ELECT	10uF	20%	50V
C498	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C499	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C501	1-136-165-00	MYLAR	0.1uF	5%	50V
C502	1-136-165-00	MYLAR	0.1uF	5%	50V

Ref. No.	Part No.	Description			Remark
C503	1-126-964-11	ELECT	10uF	20%	50V
C511	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C512	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C551	1-104-665-11	ELECT	100uF	20%	10V
C601	1-126-964-11	ELECT	10uF	20%	50V
C602	1-126-964-11	ELECT	10uF	20%	50V
C603	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C604	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C605	1-163-255-11	CERAMIC CHIP	150PF	5%	50V
C606	1-163-255-11	CERAMIC CHIP	150PF	5%	50V
C607	1-126-964-11	ELECT	10uF	20%	50V
C608	1-126-964-11	ELECT	10uF	20%	50V
C609	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C610	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C611	1-126-964-11	ELECT	10uF	20%	50V
C612	1-126-964-11	ELECT	10uF	20%	50V
C613	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C614	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C615	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C616	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C617	1-126-964-11	ELECT	10uF	20%	50V
C618	1-126-964-11	ELECT	10uF	20%	50V
C619	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C620	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C621	1-126-964-11	ELECT	10uF	20%	50V
C622	1-126-964-11	ELECT	10uF	20%	50V
C623	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C624	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C625	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C626	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C627	1-126-964-11	ELECT	10uF	20%	50V
C628	1-126-964-11	ELECT	10uF	20%	50V
C629	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C630	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C631	1-126-964-11	ELECT	10uF	20%	50V
C632	1-126-964-11	ELECT	10uF	20%	50V
C633	1-130-471-00	MYLAR	0.001uF	5%	50V
C634	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C635	1-136-159-00	MYLAR	0.033uF	5%	50V
C636	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C637	1-126-964-11	ELECT	10uF	20%	50V
C638	1-126-964-11	ELECT	10uF	20%	50V
C639	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C640	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C641	1-130-481-00	MYLAR	0.0068uF	5%	50V
C642	1-130-481-00	MYLAR	0.0068uF	5%	50V
C643	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C644	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C645	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C646	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C647	1-136-157-00	MYLAR	0.022uF	5%	50V
C648	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C680	1-104-664-11	ELECT	47uF	20%	10V
C681	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C682	1-126-916-11	ELECT	1000uF	20%	6.3V
C683	1-104-665-11	ELECT	100uF	20%	10V
C684	1-126-916-11	ELECT	1000uF	20%	6.3V
C685	1-104-665-11	ELECT	100uF	20%	10V
C686	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C687	1-163-233-11	CERAMIC CHIP	18PF	5%	50V
C688	1-163-233-11	CERAMIC CHIP	18PF	5%	50V
C689	1-163-233-11	CERAMIC CHIP	18PF	5%	50V
C690	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C691	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C692	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C901	1-126-937-11	ELECT	4700uF	20%	16V
C902	1-126-768-11	ELECT	2200uF	20%	16V
C903	1-126-964-11	ELECT	10uF	20%	50V
C904	1-126-964-11	ELECT	10uF	20%	50V
C905	1-126-964-11	ELECT	10uF	20%	50V
C906	1-126-964-11	ELECT	10uF	20%	50V
C907	1-126-924-11	ELECT	330uF	20%	6.3V
C908	1-126-924-11	ELECT	330uF	20%	6.3V
C909	1-126-964-11	ELECT	10uF	20%	50V
C911	1-126-916-11	ELECT	1000uF	20%	6.3V
C912	1-104-665-11	ELECT	100uF	20%	10V
C914	1-104-665-11	ELECT	100uF	20%	10V
C915	1-126-916-11	ELECT	1000uF	20%	6.3V
C920	1-126-943-11	ELECT	2200uF	20%	25V
C921	1-126-956-91	ELECT	0.1uF	20%	50V
C922	1-126-767-11	ELECT	1000uF	20%	16V
C924	1-126-956-91	ELECT	0.1uF	20%	50V
C925	1-126-935-11	ELECT	470uF	20%	16V
C931	1-126-964-11	ELECT	10uF	20%	50V
C932	1-126-935-11	ELECT	470uF	20%	16V
C941	1-163-038-00	CERAMIC CHIP	0.1uF		25V

< CONNECTOR >

CN103	1-785-316-41	PIN, CONNECTOR (STRAIGHT) 4P	(EA, MY, SP, HK, TH, TW, CH)
CN304	1-784-778-11	CONNECTOR, FFC 17P	
CN305	1-784-776-11	CONNECTOR, FFC 15P	
CN502	1-784-774-11	CONNECTOR, FFC 13P (EXCEPT AEP, UK, CH)	
CN502	1-784-776-11	CONNECTOR, FFC 15P (AEP, UK, CH)	
CN503	1-568-830-11	CONNECTOR, FFC 11P	
CN504	1-785-319-11	PIN, CONNECTOR (STRAIGHT) 7P	
CN601	1-770-165-11	CONNECTOR, FFC/FPC 13P	
CN602	1-770-651-11	CONNECTOR, FFC/FPC 23P	
CN901	1-778-981-21	CONNECTOR, BOARD TO BOARD 13P	
CN902	1-778-981-21	CONNECTOR, BOARD TO BOARD 13P	
* CN941	1-564-518-11	PLUG, CONNECTOR 3P	

< DIODE >

D101	8-719-988-61	DIODE	1SS355TE-17
D102	8-719-988-61	DIODE	1SS355TE-17
D181	8-719-988-61	DIODE	1SS355TE-17
D182	8-719-988-61	DIODE	1SS355TE-17
D184	8-719-911-19	DIODE	1SS119-25
D201	8-719-988-61	DIODE	1SS355TE-17
D501	8-719-988-61	DIODE	1SS355TE-17
D502	8-719-988-61	DIODE	1SS355TE-17
D503	8-719-988-61	DIODE	1SS355TE-17
D504	8-719-988-61	DIODE	1SS355TE-17
D505	8-719-988-61	DIODE	1SS355TE-17

MAIN

Ref. No.	Part No.	Description	Remark
D506	8-719-988-61	DIODE 1SS355TE-17	
D507	8-719-210-33	DIODE EC10DS2-TE12L5	
D508	8-719-988-61	DIODE 1SS355TE-17 (US, CND, AEP, UK)	
D509	8-719-988-61	DIODE 1SS355TE-17 (US, CND, AEP, UK)	
D510	8-719-988-61	DIODE 1SS355TE-17	
D512	8-719-210-33	DIODE EC10DS2-TE12L5 (US, CND, AEP, UK)	
D601	8-719-988-61	DIODE 1SS355TE-17	
D602	8-719-988-61	DIODE 1SS355TE-17	
D603	8-719-988-61	DIODE 1SS355TE-17	
D604	8-719-988-61	DIODE 1SS355TE-17	
D605	8-719-988-61	DIODE 1SS355TE-17	
D606	8-719-988-61	DIODE 1SS355TE-17	
D607	8-719-988-61	DIODE 1SS355TE-17	
D608	8-719-988-61	DIODE 1SS355TE-17	
D691	8-719-071-15	DIODE HZM6.8ZWA1TL	
D692	8-719-071-15	DIODE HZM6.8ZWA1TL	
D693	8-719-071-15	DIODE HZM6.8ZWA1TL	
D912	8-719-210-33	DIODE EC10DS2-TE12L5	
D913	8-719-210-33	DIODE EC10DS2-TE12L5	
D914	8-719-210-33	DIODE EC10DS2-TE12L5	
D951	8-719-988-61	DIODE 1SS355TE-17	
D952	8-719-210-33	DIODE EC10DS2-TE12L5	
		< EARTH TERMINAL >	
* EP901	1-537-738-21	TERMINAL, EARTH	
		< FERRITE BEAD >	
FB201	1-414-772-11	FERRITE 0uH	
FB416	1-414-772-11	FERRITE 0uH	
FB462	1-414-772-11	FERRITE 0uH	
FB499	1-414-772-11	FERRITE 0uH	
FB691	1-414-772-11	FERRITE 0uH	
FB692	1-414-772-11	FERRITE 0uH	
FB693	1-414-772-11	FERRITE 0uH	
		< IC >	
IC101	8-759-663-66	IC M61502FP	
IC201	8-759-571-51	IC M62464FP	
IC203	8-759-636-55	IC M5218AFP-T1	
IC204	8-759-636-55	IC M5218AFP-T1	
IC301	8-759-652-02	IC HA12226F	
IC401	8-759-676-71	IC M30620MCA-A53FP	
IC501	8-759-635-63	IC M51943BSL-TP	
IC551	8-749-923-04	IC TOTX178A (CD DIGITAL OUT OPTICAL)	
IC601	8-759-099-06	IC M5218AFP-TE1	
IC602	8-759-099-06	IC M5218AFP-TE1	
IC603	8-759-099-06	IC M5218AFP-TE1	
IC604	8-759-099-06	IC M5218AFP-TE1	
IC691	8-759-563-79	IC BA7660F-E2	
IC901	8-759-231-53	IC M5F7805L	
IC902	8-759-701-65	IC M5F79M05L	
IC903	8-759-158-62	IC TA78057S	
IC905	8-759-464-03	IC uPC29M12HF	
IC906	8-759-604-86	IC M5F7807L	
IC907	8-759-604-32	IC M5F7810L	

Ref. No.	Part No.	Description	Remark
		< JACK/TERMINAL >	
J101	1-784-920-11	JACK, PIN 6P (VIDEO (AUDIO) IN, MD IN/OUT)	
J102	1-770-377-31	JACK, PIN 1P (WOOFER OUT)	
J691	1-537-943-11	TERMINAL, S (S VIDEO OUT)	
J692	1-774-227-11	JACK, PIN 1P (VIDEO OUT)	
		< SHORT/CAPACITOR >	
JR1	1-216-295-00	SHORT 0	
JR2	1-216-295-00	SHORT 0	
JR3	1-216-295-00	SHORT 0	
JR6	1-216-296-00	SHORT 0	
JR7	1-216-295-00	SHORT 0	
JR9	1-216-296-00	SHORT 0	
JR10	1-216-296-00	SHORT 0	
JR11	1-216-295-00	SHORT 0	
JR15	1-216-295-00	SHORT 0	
JR16	1-216-295-00	SHORT 0	
JR17	1-216-295-00	SHORT 0	
JR18	1-216-295-00	SHORT 0 (US, CND, AEP, UK, E, MX, AR, AUS)	
JR19	1-216-295-00	SHORT 0	
JR20	1-216-295-00	SHORT 0	
JR22	1-216-296-00	SHORT 0	
JR23	1-216-296-00	SHORT 0	
JR24	1-216-296-00	SHORT 0	
JR25	1-216-296-00	SHORT 0	
JR26	1-216-295-00	SHORT 0	
JR27	1-216-295-00	SHORT 0	
JR29	1-216-296-00	SHORT 0	
JR31	1-216-296-00	SHORT 0	
JR32	1-216-295-00	SHORT 0	
JR33	1-216-296-00	SHORT 0	
JR35	1-216-296-00	SHORT 0	
JR36	1-216-296-00	SHORT 0	
JR37	1-216-296-00	SHORT 0	
JR38	1-216-296-00	SHORT 0	
JR39	1-216-296-00	SHORT 0	
JR40	1-216-296-00	SHORT 0	
JR41	1-216-296-00	SHORT 0	
JR42	1-216-296-00	SHORT 0	
JR43	1-216-295-00	SHORT 0	
JR44	1-216-296-00	SHORT 0	
JR45	1-216-295-00	SHORT 0	
JR46	1-216-296-00	SHORT 0	
JR47	1-216-296-00	SHORT 0	
JR48	1-216-296-00	SHORT 0	
JR49	1-216-296-00	SHORT 0	
JR50	1-216-296-00	SHORT 0	
JR51	1-216-295-00	SHORT 0	
JR52	1-216-295-00	SHORT 0	
JR53	1-216-295-00	SHORT 0	
JR54	1-216-295-00	SHORT 0	
JR55	1-216-296-00	SHORT 0	
JR57	1-216-295-00	SHORT 0 (AEP, UK)	
JR76	1-216-296-00	SHORT 0 (EA, MY, SP, HK, TH, TW, CH)	
JR77	1-216-296-00	SHORT 0	
JR78	1-216-295-00	SHORT 0	

Ref. No.	Part No.	Description	Remark
JR101	1-164-005-11	CERAMIC CHIP	0.47uF 25V (EA, MY, SP, HK, TH, TW, CH)
JR101	1-216-295-00	SHORT	0 (US, CND, AEP, UK, E, MX, AR, AUS)
JR103	1-216-295-00	SHORT	0
JR104	1-216-295-00	SHORT	0
JR105	1-216-295-00	SHORT	0
JR406	1-216-295-00	SHORT	0
JR495	1-216-295-00	SHORT	0
JR500	1-216-295-00	SHORT	0 (EXCEPT US, CND, AEP, UK)
JR501	1-216-295-00	SHORT	0 (AEP, UK)
JR502	1-216-295-00	SHORT	0 (AEP, UK)
JR503	1-216-295-00	SHORT	0 (AEP, UK)
JR511	1-216-295-00	SHORT	0
JR512	1-216-295-00	SHORT	0
JR601	1-216-295-00	SHORT	0
JR602	1-216-295-00	SHORT	0
JR901	1-216-296-00	SHORT	0
JR922	1-216-296-00	SHORT	0
JR923	1-216-296-00	SHORT	0 (EXCEPT AEP, UK)
JR924	1-216-296-00	SHORT	0 (EXCEPT AEP, UK)
JR993	1-216-295-00	SHORT	0
		< COIL >	
L201	1-410-393-11	INDUCTOR CHIP	100uH
L551	1-410-393-11	INDUCTOR CHIP	100uH
L691	1-410-383-31	INDUCTOR CHIP	15uH
L692	1-410-383-31	INDUCTOR CHIP	15uH
L693	1-410-383-31	INDUCTOR CHIP	15uH
		< TRANSISTOR >	
Q101	8-729-120-28	TRANSISTOR	2SC3052EF-T1-LEF
Q102	8-729-141-30	TRANSISTOR	2SC3623A-LK
Q130	8-729-231-55	TRANSISTOR	2SC2878-AB
Q151	8-729-120-28	TRANSISTOR	2SC3052EF-T1-LEF
Q152	8-729-141-30	TRANSISTOR	2SC3623A-LK
Q181	8-729-900-53	TRANSISTOR	DTC114EKA-T146
Q182	8-729-027-23	TRANSISTOR	DTA114EKA-T146
Q183	8-729-027-23	TRANSISTOR	DTA114EKA-T146
Q184	8-729-027-23	TRANSISTOR	DTA114EKA-T146
Q201	8-729-141-30	TRANSISTOR	2SC3623A-LK
Q202	8-729-141-30	TRANSISTOR	2SC3623A-LK
Q203	8-729-141-30	TRANSISTOR	2SC3623A-LK
Q391	8-729-140-04	TRANSISTOR	2SB1116-TP-LK
Q392	8-729-900-53	TRANSISTOR	DTC114EKA-T146
Q393	8-729-140-04	TRANSISTOR	2SB1116-TP-LK
Q394	8-729-900-53	TRANSISTOR	DTC114EKA-T146
Q395	8-729-900-53	TRANSISTOR	DTC114EKA-T146
Q396	8-729-116-59	TRANSISTOR	2SB1068TP
Q397	8-729-900-53	TRANSISTOR	DTC114EKA-T146
Q501	8-729-120-28	TRANSISTOR	2SC3052EF-T1-LEF
Q601	8-729-107-45	TRANSISTOR	2SC3624A-T1L15L16
Q602	8-729-107-45	TRANSISTOR	2SC3624A-T1L15L16
Q603	8-729-107-45	TRANSISTOR	2SC3624A-T1L15L16
Q604	8-729-107-45	TRANSISTOR	2SC3624A-T1L15L16
Q605	8-729-107-45	TRANSISTOR	2SC3624A-T1L15L16
Q606	8-729-107-45	TRANSISTOR	2SC3624A-T1L15L16
Q607	8-729-107-45	TRANSISTOR	2SC3624A-T1L15L16
Q608	8-729-107-45	TRANSISTOR	2SC3624A-T1L15L16
Q609	8-729-900-53	TRANSISTOR	DTC114EKA-T146
Q610	8-729-027-23	TRANSISTOR	DTA114EKA-T146
Q611	8-729-027-23	TRANSISTOR	DTA114EKA-T146
Q612	8-729-027-23	TRANSISTOR	DTA114EKA-T146
Q613	8-729-027-23	TRANSISTOR	DTA114EKA-T146
Q614	8-729-027-23	TRANSISTOR	DTA114EKA-T146
Q615	8-729-027-23	TRANSISTOR	DTA114EKA-T146
Q616	8-729-027-23	TRANSISTOR	DTA114EKA-T146
Q617	8-729-027-23	TRANSISTOR	DTA114EKA-T146
Q618	8-729-027-23	TRANSISTOR	DTA114EKA-T146
Q691	8-729-027-23	TRANSISTOR	DTA114EKA-T146
Q692	1-801-806-11	TRANSISTOR	DTC144EKA-T146
Q901	8-729-049-79	TRANSISTOR	RT1P137S-TP
Q902	8-729-027-31	TRANSISTOR	DTA124EKA-T146
Q903	8-729-049-80	TRANSISTOR	RTIN137S-TP
Q904	8-729-901-00	TRANSISTOR	DTC124EKA-T146
Q905	8-729-600-22	TRANSISTOR	2SA1235TP-1EF
Q906	8-729-027-44	TRANSISTOR	DTC114TKA-T146
Q910	8-729-049-79	TRANSISTOR	RT1P137S-TP
Q911	8-729-901-00	TRANSISTOR	DTC124EKA-T146
Q912	8-729-900-53	TRANSISTOR	DTC114EKA-T146
Q913	8-729-040-20	TRANSISTOR	RT1P137L-TP
Q941	8-729-111-29	TRANSISTOR	2SD1616A-TP-LK
Q942	8-729-600-22	TRANSISTOR	2SA1235TP-1EF
		< RESISTOR >	
R101	1-216-073-00	METAL CHIP	10K 5% 1/10W
R102	1-216-073-00	METAL CHIP	10K 5% 1/10W
R103	1-216-073-00	METAL CHIP	10K 5% 1/10W
R104	1-216-121-00	RES-CHIP	1M 5% 1/10W
R105	1-216-113-00	METAL CHIP	470K 5% 1/10W
R106	1-216-081-00	METAL CHIP	22K 5% 1/10W
R107	1-216-053-00	METAL CHIP	1.5K 5% 1/10W
R109	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
R110	1-216-097-00	RES-CHIP	100K 5% 1/10W
R111	1-216-089-00	RES-CHIP	47K 5% 1/10W
R112	1-216-073-00	METAL CHIP	10K 5% 1/10W
R121	1-216-025-00	RES-CHIP	100 5% 1/10W
R122	1-216-025-00	RES-CHIP	100 5% 1/10W
R123	1-216-025-00	RES-CHIP	100 5% 1/10W
R124	1-216-073-00	METAL CHIP	10K 5% 1/10W
R131	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
R132	1-216-049-11	RES-CHIP	1K 5% 1/10W
R133	1-216-097-00	RES-CHIP	100K 5% 1/10W
R134	1-216-073-00	METAL CHIP	10K 5% 1/10W
R135	1-216-097-00	RES-CHIP	100K 5% 1/10W (EA, MY, SP, HK, TH, TW, CH)
R136	1-216-073-00	METAL CHIP	10K 5% 1/10W (EA, MY, SP, HK, TH, TW, CH)
R137	1-216-174-00	RES-CHIP	100 5% 1/8W (EA, MY, SP, HK, TH, TW, CH)
R141	1-216-049-11	RES-CHIP	1K 5% 1/10W
R142	1-216-097-00	RES-CHIP	100K 5% 1/10W
R143	1-216-071-00	METAL CHIP	8.2K 5% 1/10W
R144	1-216-077-00	RES-CHIP	15K 5% 1/10W
R145	1-216-049-11	RES-CHIP	1K 5% 1/10W

MAIN

Ref. No.	Part No.	Description			Remark
R146	1-216-097-00	RES-CHIP	100K	5%	1/10W
R151	1-216-073-00	METAL CHIP	10K	5%	1/10W
R152	1-216-073-00	METAL CHIP	10K	5%	1/10W
R153	1-216-073-00	METAL CHIP	10K	5%	1/10W
R154	1-216-121-00	RES-CHIP	1M	5%	1/10W
R155	1-216-113-00	METAL CHIP	470K	5%	1/10W
R156	1-216-081-00	METAL CHIP	22K	5%	1/10W
R157	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R159	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R160	1-216-097-00	RES-CHIP	100K	5%	1/10W
R161	1-216-089-00	RES-CHIP	47K	5%	1/10W
R162	1-216-073-00	METAL CHIP	10K	5%	1/10W
R181	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R182	1-216-097-00	RES-CHIP	100K	5%	1/10W
R183	1-216-097-00	RES-CHIP	100K	5%	1/10W
R191	1-216-049-11	RES-CHIP	1K	5%	1/10W
R192	1-216-097-00	RES-CHIP	100K	5%	1/10W
R193	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R194	1-216-077-00	RES-CHIP	15K	5%	1/10W
R195	1-216-049-11	RES-CHIP	1K	5%	1/10W
R196	1-216-097-00	RES-CHIP	100K	5%	1/10W
R201	1-216-089-00	RES-CHIP	47K	5%	1/10W
R202	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R203	1-216-073-00	METAL CHIP	10K	5%	1/10W
R204	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R205	1-216-097-00	RES-CHIP	100K	5%	1/10W
R206	1-216-073-00	METAL CHIP	10K	5%	1/10W
R207	1-216-089-00	RES-CHIP	47K	5%	1/10W
R208	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R209	1-216-073-00	METAL CHIP	10K	5%	1/10W
R210	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R211	1-216-097-00	RES-CHIP	100K	5%	1/10W
R212	1-216-073-00	METAL CHIP	10K	5%	1/10W
R213	1-216-089-00	RES-CHIP	47K	5%	1/10W
R214	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R215	1-216-073-00	METAL CHIP	10K	5%	1/10W
R216	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R217	1-216-097-00	RES-CHIP	100K	5%	1/10W
R218	1-216-073-00	METAL CHIP	10K	5%	1/10W
R219	1-216-089-00	RES-CHIP	47K	5%	1/10W
R220	1-216-073-00	METAL CHIP	10K	5%	1/10W
R221	1-216-073-00	METAL CHIP	10K	5%	1/10W
R222	1-216-025-00	RES-CHIP	100	5%	1/10W
R223	1-216-025-00	RES-CHIP	100	5%	1/10W
R224	1-216-025-00	RES-CHIP	100	5%	1/10W
R225	1-216-109-00	METAL CHIP	330K	5%	1/10W
R226	1-216-089-00	RES-CHIP	47K	5%	1/10W
R227	1-216-094-00	RES-CHIP	75K	5%	1/10W
R228	1-216-089-00	RES-CHIP	47K	5%	1/10W
R229	1-216-094-00	RES-CHIP	75K	5%	1/10W
R230	1-216-101-00	METAL CHIP	150K	5%	1/10W
R231	1-216-101-00	METAL CHIP	150K	5%	1/10W
R232	1-216-097-00	RES-CHIP	100K	5%	1/10W
R233	1-216-097-00	RES-CHIP	100K	5%	1/10W
R234	1-216-097-00	RES-CHIP	100K	5%	1/10W
R235	1-216-097-00	RES-CHIP	100K	5%	1/10W
R301	1-216-085-00	METAL CHIP	33K	5%	1/10W
R302	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R303	1-216-025-00	RES-CHIP	100	5%	1/10W
R304	1-216-025-00	RES-CHIP	100	5%	1/10W
R305	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R306	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R307	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R308	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R309	1-216-081-00	METAL CHIP	22K	5%	1/10W
R311	1-216-121-00	RES-CHIP	1M	5%	1/10W
R312	1-216-102-00	RES-CHIP	160K	5%	1/10W
R313	1-216-097-00	RES-CHIP	100K	5%	1/10W
R315	1-216-073-00	METAL CHIP	10K	5%	1/10W
R316	1-216-086-00	RES-CHIP	36K	5%	1/10W
R317	1-216-073-00	METAL CHIP	10K	5%	1/10W
R318	1-216-073-00	METAL CHIP	10K	5%	1/10W
R319	1-216-111-00	METAL CHIP	390K	5%	1/10W
R320	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R321	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R323	1-216-089-00	RES-CHIP	47K	5%	1/10W
R324	1-216-089-00	RES-CHIP	47K	5%	1/10W
R351	1-216-085-00	METAL CHIP	33K	5%	1/10W
R352	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R353	1-216-025-00	RES-CHIP	100	5%	1/10W
R354	1-216-025-00	RES-CHIP	100	5%	1/10W
R355	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R356	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R357	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R358	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R359	1-216-085-00	METAL CHIP	33K	5%	1/10W
R360	1-216-045-00	METAL CHIP	680	5%	1/10W
R361	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R363	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R364	1-216-045-00	METAL CHIP	680	5%	1/10W
R366	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R367	1-216-089-00	RES-CHIP	47K	5%	1/10W
R368	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R369	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R371	1-216-238-91	RES-CHIP	47K	5%	1/8W
R372	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R373	1-216-049-11	RES-CHIP	1K	5%	1/10W
R374	1-216-089-00	RES-CHIP	47K	5%	1/10W
R375	1-216-094-00	RES-CHIP	75K	5%	1/10W
R376	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R377	1-216-089-00	RES-CHIP	47K	5%	1/10W
R378	1-216-094-00	RES-CHIP	75K	5%	1/10W
R404	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R406	1-216-025-00	RES-CHIP	100	5%	1/10W
R408	1-216-025-00	RES-CHIP	100	5%	1/10W
R409	1-216-073-00	METAL CHIP	10K	5%	1/10W
R411	1-216-109-00	METAL CHIP	330K	5%	1/10W
R412	1-216-025-00	RES-CHIP	100	5%	1/10W
R413	1-216-295-00	SHORT	0		
R416	1-216-073-00	METAL CHIP	10K	5%	1/10W
R417	1-216-073-00	METAL CHIP	10K	5%	1/10W
R418	1-216-025-00	RES-CHIP	100	5%	1/10W
R420	1-216-025-00	RES-CHIP	100	5%	1/10W (AEP, UK)

Ref. No.	Part No.	Description			Remark
R421	1-216-025-00	RES-CHIP	100	5%	1/10W
					(AEP, UK)
R422	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R423	1-216-025-00	RES-CHIP	100	5%	1/10W
R424	1-216-025-00	RES-CHIP	100	5%	1/10W
R425	1-216-025-00	RES-CHIP	100	5%	1/10W
R426	1-216-025-00	RES-CHIP	100	5%	1/10W
R428	1-216-025-00	RES-CHIP	100	5%	1/10W
R429	1-216-001-00	METAL CHIP	10	5%	1/10W
R430	1-216-001-00	METAL CHIP	10	5%	1/10W
R431	1-216-025-00	RES-CHIP	100	5%	1/10W
R432	1-216-025-00	RES-CHIP	100	5%	1/10W
R433	1-216-025-00	RES-CHIP	100	5%	1/10W
R434	1-216-025-00	RES-CHIP	100	5%	1/10W
R435	1-216-025-00	RES-CHIP	100	5%	1/10W
R436	1-216-073-00	METAL CHIP	10K	5%	1/10W
R437	1-216-073-00	METAL CHIP	10K	5%	1/10W
R438	1-216-049-11	RES-CHIP	1K	5%	1/10W
R439	1-216-073-00	METAL CHIP	10K	5%	1/10W
R440	1-216-222-00	RES-CHIP	10K	5%	1/8W
R446	1-216-025-00	RES-CHIP	100	5%	1/10W
R447	1-216-025-00	RES-CHIP	100	5%	1/10W
R448	1-216-025-00	RES-CHIP	100	5%	1/10W
R449	1-216-025-00	RES-CHIP	100	5%	1/10W
R450	1-216-025-00	RES-CHIP	100	5%	1/10W
R451	1-216-174-00	RES-CHIP	100	5%	1/8W
R452	1-216-174-00	RES-CHIP	100	5%	1/8W
R453	1-216-073-00	METAL CHIP	10K	5%	1/10W
R454	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R455	1-216-073-00	METAL CHIP	10K	5%	1/10W
R463	1-216-025-00	RES-CHIP	100	5%	1/10W
R469	1-216-025-00	RES-CHIP	100	5%	1/10W
R470	1-216-025-00	RES-CHIP	100	5%	1/10W
R471	1-216-174-00	RES-CHIP	100	5%	1/8W
R472	1-216-025-00	RES-CHIP	100	5%	1/10W
R475	1-216-025-00	RES-CHIP	100	5%	1/10W
R476	1-216-025-00	RES-CHIP	100	5%	1/10W
R477	1-216-025-00	RES-CHIP	100	5%	1/10W
R478	1-216-025-00	RES-CHIP	100	5%	1/10W
R481	1-216-025-00	RES-CHIP	100	5%	1/10W
R482	1-216-025-00	RES-CHIP	100	5%	1/10W
R483	1-216-025-00	RES-CHIP	100	5%	1/10W
R484	1-216-025-00	RES-CHIP	100	5%	1/10W
R485	1-216-025-00	RES-CHIP	100	5%	1/10W
R486	1-216-025-00	RES-CHIP	100	5%	1/10W
R487	1-216-025-00	RES-CHIP	100	5%	1/10W
R488	1-216-073-00	METAL CHIP	10K	5%	1/10W
R489	1-216-025-00	RES-CHIP	100	5%	1/10W
R490	1-216-025-00	RES-CHIP	100	5%	1/10W
R491	1-216-025-00	RES-CHIP	100	5%	1/10W
R492	1-216-089-00	RES-CHIP	47K	5%	1/10W
R493	1-216-073-00	METAL CHIP	10K	5%	1/10W
					(US, CND)
R493	1-216-085-00	METAL CHIP	33K	5%	1/10W
					(AEP, UK)
R493	1-216-089-00	RES-CHIP	47K	5%	1/10W
			(EXCEPT US, CND, AEP, UK)		
R494	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
			(EA, MY, SP, HK, TH, TW, CH)		
R494	1-216-081-00	METAL CHIP	22K	5%	1/10W
					(E, MX, AR)
R494	1-126-085-00	METAL CHIP	33K	5%	1/10W
					(AUS)
R494	1-216-089-00	RES-CHIP	47K	5%	1/10W
					(US, CND, AEP, UK)
R495	1-216-025-00	RES-CHIP	100	5%	1/10W
R501	1-216-073-00	METAL CHIP	10K	5%	1/10W
R502	1-216-089-00	RES-CHIP	47K	5%	1/10W
R503	1-216-089-00	RES-CHIP	47K	5%	1/10W
R504	1-216-025-00	RES-CHIP	100	5%	1/10W
R505	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R506	1-216-041-00	METAL CHIP	470	5%	1/10W
R521	1-216-222-00	RES-CHIP	10K	5%	1/8W
R522	1-216-222-00	RES-CHIP	10K	5%	1/8W
R523	1-216-222-00	RES-CHIP	10K	5%	1/8W
R524	1-216-222-00	RES-CHIP	10K	5%	1/8W
R525	1-216-073-00	METAL CHIP	10K	5%	1/10W
R526	1-216-073-00	METAL CHIP	10K	5%	1/10W
R527	1-216-073-00	METAL CHIP	10K	5%	1/10W
R528	1-216-073-00	METAL CHIP	10K	5%	1/10W
R529	1-216-073-00	METAL CHIP	10K	5%	1/10W
R530	1-216-073-00	METAL CHIP	10K	5%	1/10W
R531	1-216-073-00	METAL CHIP	10K	5%	1/10W
R601	1-216-049-11	RES-CHIP	1K	5%	1/10W
R602	1-216-049-11	RES-CHIP	1K	5%	1/10W
R603	1-216-049-11	RES-CHIP	1K	5%	1/10W
R604	1-216-049-11	RES-CHIP	1K	5%	1/10W
R605	1-216-097-00	RES-CHIP	100K	5%	1/10W
R606	1-216-097-00	RES-CHIP	100K	5%	1/10W
R607	1-216-295-00	SHORT	0		
R608	1-216-295-00	SHORT	0		
R611	1-216-077-00	RES-CHIP	15K	5%	1/10W
R612	1-216-077-00	RES-CHIP	15K	5%	1/10W
R613	1-216-073-00	METAL CHIP	10K	5%	1/10W
R614	1-216-073-00	METAL CHIP	10K	5%	1/10W
R615	1-216-097-00	RES-CHIP	100K	5%	1/10W
R616	1-216-097-00	RES-CHIP	100K	5%	1/10W
R617	1-216-049-11	RES-CHIP	1K	5%	1/10W
R618	1-216-049-11	RES-CHIP	1K	5%	1/10W
R619	1-216-049-11	RES-CHIP	1K	5%	1/10W
R620	1-216-049-11	RES-CHIP	1K	5%	1/10W
R621	1-216-097-00	RES-CHIP	100K	5%	1/10W
R622	1-216-097-00	RES-CHIP	100K	5%	1/10W
R623	1-216-056-00	RES-CHIP	2K	5%	1/10W
R624	1-216-056-00	RES-CHIP	2K	5%	1/10W
R625	1-216-058-00	RES-CHIP	2.4K	5%	1/10W
R626	1-216-058-00	RES-CHIP	2.4K	5%	1/10W
R627	1-216-077-00	RES-CHIP	15K	5%	1/10W
R628	1-216-077-00	RES-CHIP	15K	5%	1/10W
R629	1-216-073-00	METAL CHIP	10K	5%	1/10W
R630	1-216-073-00	METAL CHIP	10K	5%	1/10W
R631	1-216-097-00	RES-CHIP	100K	5%	1/10W
R632	1-216-097-00	RES-CHIP	100K	5%	1/10W
R633	1-216-049-11	RES-CHIP	1K	5%	1/10W
R634	1-216-049-11	RES-CHIP	1K	5%	1/10W
R635	1-216-049-11	RES-CHIP	1K	5%	1/10W
R636	1-216-049-11	RES-CHIP	1K	5%	1/10W

MAIN **MB**

Ref. No.	Part No.	Description			Remark
R637	1-216-097-00	RES-CHIP	100K	5%	1/10W
R638	1-216-097-00	RES-CHIP	100K	5%	1/10W
R639	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R640	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R641	1-216-058-00	RES-CHIP	2.4K	5%	1/10W
R642	1-216-058-00	RES-CHIP	2.4K	5%	1/10W
R643	1-216-077-00	RES-CHIP	15K	5%	1/10W
R644	1-216-077-00	RES-CHIP	15K	5%	1/10W
R645	1-216-073-00	METAL CHIP	10K	5%	1/10W
R646	1-216-073-00	METAL CHIP	10K	5%	1/10W
R647	1-216-097-00	RES-CHIP	100K	5%	1/10W
R648	1-216-097-00	RES-CHIP	100K	5%	1/10W
R649	1-216-049-11	RES-CHIP	1K	5%	1/10W
R650	1-216-049-11	RES-CHIP	1K	5%	1/10W
R651	1-216-049-11	RES-CHIP	1K	5%	1/10W
R652	1-216-049-11	RES-CHIP	1K	5%	1/10W
R653	1-216-097-00	RES-CHIP	100K	5%	1/10W
R654	1-216-097-00	RES-CHIP	100K	5%	1/10W
R655	1-216-079-00	METAL CHIP	18K	5%	1/10W
R656	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R657	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R658	1-216-058-00	RES-CHIP	2.4K	5%	1/10W
R659	1-216-077-00	RES-CHIP	15K	5%	1/10W
R660	1-216-077-00	RES-CHIP	15K	5%	1/10W
R661	1-216-077-00	RES-CHIP	15K	5%	1/10W
R662	1-216-073-00	METAL CHIP	10K	5%	1/10W
R663	1-216-097-00	RES-CHIP	100K	5%	1/10W
R664	1-216-097-00	RES-CHIP	100K	5%	1/10W
R665	1-216-097-00	RES-CHIP	100K	5%	1/10W
R666	1-216-089-00	RES-CHIP	47K	5%	1/10W
R667	1-216-097-00	RES-CHIP	100K	5%	1/10W
R668	1-216-089-00	RES-CHIP	47K	5%	1/10W
R669	1-216-097-00	RES-CHIP	100K	5%	1/10W
R670	1-216-089-00	RES-CHIP	47K	5%	1/10W
R671	1-216-097-00	RES-CHIP	100K	5%	1/10W
R672	1-216-089-00	RES-CHIP	47K	5%	1/10W
R673	1-216-097-00	RES-CHIP	100K	5%	1/10W
R674	1-216-089-00	RES-CHIP	47K	5%	1/10W
R675	1-216-097-00	RES-CHIP	100K	5%	1/10W
R676	1-216-089-00	RES-CHIP	47K	5%	1/10W
R677	1-216-097-00	RES-CHIP	100K	5%	1/10W
R678	1-216-089-00	RES-CHIP	47K	5%	1/10W
R679	1-216-097-00	RES-CHIP	100K	5%	1/10W
R680	1-216-073-00	METAL CHIP	10K	5%	1/10W
R681	1-216-097-00	RES-CHIP	100K	5%	1/10W
R682	1-216-073-00	METAL CHIP	10K	5%	1/10W
R690	1-216-073-00	METAL CHIP	10K	5%	1/10W
R691	1-216-021-00	METAL CHIP	68	5%	1/10W
R692	1-216-021-00	METAL CHIP	68	5%	1/10W
R693	1-216-021-00	METAL CHIP	68	5%	1/10W
R694	1-216-073-00	METAL CHIP	10K	5%	1/10W
R695	1-216-073-00	METAL CHIP	10K	5%	1/10W
R901	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R902	1-216-081-00	METAL CHIP	22K	5%	1/10W
R903	1-216-049-11	RES-CHIP	1K	5%	1/10W
R941	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R942	1-216-097-00	RES-CHIP	100K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R943	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
		< VARIABLE RESISTOR >			
RV301	1-238-600-11	RES, ADJ, CARBON 10K			
RV351	1-238-600-11	RES, ADJ, CARBON 10K			
		< VIBRATOR >			
X401	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			
X402	1-781-107-21	VIBRATOR, CERAMIC (16MHz)			
**********					
	A-4473-709-A	MB BOARD, COMPLETE (TH)			
	A-4473-710-A	MB BOARD, COMPLETE (US, CND)			
	A-4473-711-A	MB BOARD, COMPLETE (AEP, UK)			
	A-4473-712-A	MB BOARD, COMPLETE (E, MX, AR)			
	A-4473-713-A	MB BOARD, COMPLETE (EA)			
	A-4473-714-A	MB BOARD, COMPLETE (MY, SP, HK, TW)			
	A-4473-715-A	MB BOARD, COMPLETE (AUS)			
	A-4473-861-A	MB BOARD, COMPLETE (CH)			
		**********			
		< CAPACITOR >			
C001	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C002	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C003	1-126-246-11	ELECT CHIP	220uF	20%	4V
C004	1-126-204-11	ELECT CHIP	47uF	20%	16V
C005	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C007	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C008	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C010	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C011	1-125-822-11	TANTALUM	10uF	20%	10V
C012	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C013	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C015	1-126-246-11	ELECT CHIP	220uF	20%	4V
C016	1-125-822-11	TANTALUM	10uF	20%	10V
C017	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C018	1-125-822-11	TANTALUM	10uF	20%	10V
C019	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C201	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C202	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C203	1-125-822-11	TANTALUM	10uF	20%	10V
C204	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C206	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C209	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C210	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C211	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C212	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C213	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C304	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C307	1-125-822-11	TANTALUM	10uF	20%	10V
C309	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C310	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C312	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C313	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C314	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C315	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C316	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C317	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V

Ref. No.	Part No.	Description			Remark
C318	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C319	1-125-822-11	TANTALUM	10uF	20%	10V
C320	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C321	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C322	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C323	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C324	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C325	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C327	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C328	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C329	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C331	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C333	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C334	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C337	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C338	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C339	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C341	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C343	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C344	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C401	1-125-822-11	TANTALUM	10uF	20%	10V
C402	1-126-209-11	ELECT CHIP	100uF	20%	4V
C403	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C404	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C405	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C406	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C408	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C410	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C411	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C413	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C414	1-125-822-11	TANTALUM	10uF	20%	10V
C415	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C416	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C418	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C420	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C422	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C425	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C426	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C428	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C431	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C432	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C433	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C434	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C436	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C438	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C439	1-125-822-11	TANTALUM	10uF	20%	10V
C440	1-125-822-11	TANTALUM	10uF	20%	10V
C441	1-126-209-11	ELECT CHIP	100uF	20%	4V
C443	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C505	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C506	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C508	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C510	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C512	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C601	1-125-822-11	TANTALUM	10uF	20%	10V
C602	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C603	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C604	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C605	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C606	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C607	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C608	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C701	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C702	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C703	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C704	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C705	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C706	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C707	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C708	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C709	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C710	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C711	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C712	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C713	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C714	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C715	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C717	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C801	1-126-204-11	ELECT CHIP	47uF	20%	16V
C802	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C803	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C805	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C806	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C807	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C808	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C809	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C810	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C812	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C813	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C814	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C815	1-110-666-11	ELECT CHIP	22uF	20%	6.3V
C818	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C819	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C820	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C821	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C822	1-126-204-11	ELECT CHIP	47uF	20%	16V
C823	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C824	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C825	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C830	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C831	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C832	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C833	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C834	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C835	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C836	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C837	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C904	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C905	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C906	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C907	1-125-822-11	TANTALUM	10uF	20%	10V
C908	1-128-391-11	ELECT CHIP	330uF	20%	6.3V
C909	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C910	1-125-822-11	TANTALUM	10uF	20%	10V
C911	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V

Ref. No.	Part No.	Description			Remark
C913	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C914	1-125-822-11	TANTALUM	10uF	20%	10V
C916	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C922	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C923	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C924	1-125-822-11	TANTALUM	10uF	20%	10V
C925	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C926	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C927	1-125-822-11	TANTALUM	10uF	20%	10V
C928	1-128-391-11	ELECT CHIP	330uF	20%	6.3V
C929	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C931	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C932	1-125-822-11	TANTALUM	10uF	20%	10V
C933	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C934	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C935	1-125-822-11	TANTALUM	10uF	20%	10V
C937	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C939	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C940	1-125-822-11	TANTALUM	10uF	20%	10V
		< CONNECTOR >			
CN001	1-794-606-21	PIN, CONNECTOR (PC BPARD 9P			
CN002	1-793-990-11	CONNECTOR, FFC/FPC 18P			
CN003	1-793-990-11	CONNECTOR, FFC/FPC 18P			
CN005	1-793-991-11	CONNECTOR, FFC/FPC 23P			
CN006	1-793-988-11	CONNECTOR, FFC/FPC 10P			
CN007	1-793-989-11	CONNECTOR, FFC/FPC 13P			
CN009	1-793-806-11	CONNECTOR, FFC/FPC 17P			
CN010	1-793-687-11	PIN, CONNECTOR (1.5mm) (SMD) 5P			
CN012	1-793-687-31	PIN, CONNECTOR (1.5mm) (SMD) 5P			
* CN013	1-569-775-21	PIN, CONNECTOR (SMD) 5P			
		< DIODE >			
D701	8-719-988-61	DIODE 1SS355TE-17			
D801	8-719-941-09	DIODE DAP202UT106			
D802	8-719-988-61	DIODE 1SS355TE-17			
D803	8-719-941-09	DIODE DAP202UT106			
D804	8-719-941-86	DIODE DAN202UT106			
D805	8-719-941-86	DIODE DAN202UT106			
D806	8-719-988-61	DIODE 1SS355TE-17			
D807	8-719-988-61	DIODE 1SS355TE-17			
		< FERRITE BEAD/RESISTOR >			
FB001	1-469-324-21	FERRITE	0uH		
FB002	1-469-324-21	FERRITE	0uH		
FB003	1-469-324-21	FERRITE	0uH		
FB004	1-469-324-21	FERRITE	0uH		
FB005	1-469-324-21	FERRITE	0uH		
FB006	1-469-324-21	FERRITE	0uH		
FB007	1-469-324-21	FERRITE	0uH		
FB008	1-469-324-21	FERRITE	0uH		
FB014	1-469-116-21	FERRITE	0uH		
FB015	1-469-116-21	FERRITE	0uH		
FB016	1-216-801-11	METAL CHIP	22	5%	1/16W
FB017	1-469-116-21	FERRITE	0uH		
FB018	1-469-116-21	FERRITE	0uH		
FB019	1-469-116-21	FERRITE	0uH		
FB022	1-469-116-21	FERRITE	0uH		

Ref. No.	Part No.	Description			Remark
FB023	1-469-116-21	FERRITE	0uH		
FB024	1-469-116-21	FERRITE	0uH		
FB026	1-469-116-21	FERRITE	0uH		
FB028	1-469-116-21	FERRITE	0uH		
FB030	1-469-116-21	FERRITE	0uH		
FB032	1-469-116-21	FERRITE	0uH		
FB035	1-469-116-21	FERRITE	0uH		
FB037	1-469-116-21	FERRITE	0uH		
FB040	1-469-116-21	FERRITE	0uH		
FB043	1-500-283-11	FERRITE	0uH		
FB047	1-469-116-21	FERRITE	0uH		
FB055	1-500-283-11	FERRITE	0uH		
FB056	1-500-283-11	FERRITE	0uH		
FB058	1-500-283-11	FERRITE	0uH		
FB060	1-500-283-11	FERRITE	0uH		
FB061	1-469-116-21	FERRITE	0uH		
FB063	1-469-116-21	FERRITE	0uH		
FB065	1-469-116-21	FERRITE	0uH		
FB067	1-469-116-21	FERRITE	0uH		
FB069	1-469-116-21	FERRITE	0uH		
FB071	1-469-116-21	FERRITE	0uH		
FB073	1-469-116-21	FERRITE	0uH		
FB075	1-469-116-21	FERRITE	0uH		
FB077	1-469-116-21	FERRITE	0uH		
FB078	1-216-801-11	METAL CHIP	22	5%	1/16W
FB080	1-216-801-11	METAL CHIP	22	5%	1/16W
FB081	1-216-801-11	METAL CHIP	22	5%	1/16W
FB083	1-216-801-11	METAL CHIP	22	5%	1/16W
FB084	1-216-801-11	METAL CHIP	22	5%	1/16W
FB085	1-216-801-11	METAL CHIP	22	5%	1/16W
FB087	1-216-801-11	METAL CHIP	22	5%	1/16W
FB088	1-216-801-11	METAL CHIP	22	5%	1/16W
FB090	1-469-116-21	FERRITE	0uH		
FB105	1-469-324-21	FERRITE	0uH		
FB106	1-469-324-21	FERRITE	0uH		
FB110	1-469-116-21	FERRITE	0uH		
		< FILTER >			
FL001	1-234-177-21	FILTER, CHIP EMI			
FL002	1-234-177-21	FILTER, CHIP EMI			
FL003	1-233-893-21	FILTER, CHIP EMI			
FL004	1-233-893-21	FILTER, CHIP EMI			
FL005	1-234-177-21	FILTER, CHIP EMI			
FL006	1-234-177-21	FILTER, CHIP EMI			
FL008	1-234-177-21	FILTER, CHIP EMI			
FL009	1-234-177-21	FILTER, CHIP EMI			
FL010	1-234-177-21	FILTER, CHIP EMI			
FL011	1-234-177-21	FILTER, CHIP EMI			
FL013	1-233-893-21	FILTER, CHIP EMI			
FL014	1-234-177-21	FILTER, CHIP EMI			
FL015	1-234-177-21	FILTER, CHIP EMI			
FL016	1-234-177-21	FILTER, CHIP EMI			
FL202	1-234-177-21	FILTER, CHIP EMI			
FL203	1-234-177-21	FILTER, CHIP EMI			
FL204	1-234-177-21	FILTER, CHIP EMI			
FL205	1-234-177-21	FILTER, CHIP EMI			
FL301	1-234-177-21	FILTER, CHIP EMI			

Ref. No.	Part No.	Description	Remark
FL302	1-234-177-21	FILTER, CHIP EMI	
FL303	1-234-177-21	FILTER, CHIP EMI	
FL401	1-234-177-21	FILTER, CHIP EMI	
FL402	1-234-177-21	FILTER, CHIP EMI	
FL403	1-234-177-21	FILTER, CHIP EMI	
FL404	1-234-177-21	FILTER, CHIP EMI	
FL405	1-234-177-21	FILTER, CHIP EMI	
FL502	1-234-177-21	FILTER, CHIP EMI	
FL601	1-234-177-21	FILTER, CHIP EMI	
FL602	1-234-177-21	FILTER, CHIP EMI	
FL701	1-234-177-21	FILTER, CHIP EMI	
FL904	1-234-177-21	FILTER, CHIP EMI	
		< IC >	
IC001	8-759-567-31	IC PLL1700E/2K	
IC003	8-759-531-92	IC TC7WH04FU (TE12R)	
IC004	8-759-531-92	IC TC7WH04FU (TE12R)	
IC005	8-759-486-55	IC NJM2370U33-TE2	
IC201	8-759-362-00	IC BR9040F-E2	
IC202	8-759-599-39	IC MB91101APFV-G-BND	
IC203	8-759-645-76	IC TC74VHCT32AFT	
IC204	8-759-573-65	IC IDT71V016S20PHAU-TL	
IC206	8-759-680-32	IC MR27V1602D-D6MAZ060 (AEP, UK)	
IC206	8-759-680-33	IC MR27V1602D-D4MAZ060 (US, CND, E, EA, MX, AR, AUS)	
IC206	8-759-680-34	IC MR27V1602D-D5MAZ060 (MY, SP, HK, TH, TW, CH)	
IC207	8-759-427-92	IC PST9126NL	
IC302	8-759-486-55	IC NJM2370U33-TE2	
IC303	8-759-567-27	IC CXD8784R	
IC304	8-759-643-10	IC GM71V18160CT-6TR	
IC401	8-752-398-60	IC CXD1930BQ	
IC402	8-759-567-34	IC HY57V161610DTC-7TR	
IC403	8-759-567-34	IC HY57V161610DTC-7TR	
IC404	8-759-486-55	IC NJM2370U33-TE2	
IC501	8-752-400-43	IC CXD1901AR	
IC601	8-759-567-30	IC CXD8788Q	
IC701	8-759-598-87	IC CXD8791AQ	
IC702	8-759-337-40	IC NJM2904V (TE2)	
IC801	8-759-522-13	IC BA5981FP-E2	
IC802	8-759-567-26	IC BA5983FP-E2	
IC803	8-759-338-78	IC BA10324AFV-E2	
IC902	8-759-572-26	IC CXD8799N-T2	
IC904	8-759-052-52	IC BA178M05FP-E2	
IC905	8-759-572-26	IC CXD8799N-T2	
IC906	8-759-572-26	IC CXD8799N-T2	
IC907	8-759-572-26	IC CXD8799N-T2	
		< RESISTOR >	
JW001	1-216-864-11	METAL CHIP 0 5% 1/16W (US, CND)	
JW002	1-216-864-11	METAL CHIP 0 5% 1/16W (E, MX, AR)	
JW003	1-216-864-11	METAL CHIP 0 5% 1/16W (AEP, UK)	
JW004	1-216-864-11	METAL CHIP 0 5% 1/16W (EA)	
JW005	1-216-864-11	METAL CHIP 0 5% 1/16W (AUS)	
JW006	1-216-864-11	METAL CHIP 0 5% 1/16W (MY, SP, HK, TH, TW)	
JW007	1-216-864-11	METAL CHIP 0 5% 1/16W (CH)	
		< COIL >	
L001	1-414-754-11	INDUCTOR 10uH	
L402	1-414-754-11	INDUCTOR 10uH	
		< TRANSISTOR >	
Q801	8-729-028-73	TRANSISTOR DTA114EUA-T106	
		< RESISTOR >	
R001	1-216-833-11	RES-CHIP 10K 5% 1/16W	
R002	1-216-833-11	RES-CHIP 10K 5% 1/16W	
R003	1-216-833-11	RES-CHIP 10K 5% 1/16W	
R004	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R005	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R006	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R007	1-216-833-11	RES-CHIP 10K 5% 1/16W	
R009	1-216-864-11	METAL CHIP 0 5% 1/16W	
R010	1-216-801-11	METAL CHIP 22 5% 1/16W	
R011	1-216-829-11	METAL CHIP 4.7K 5% 1/16W	
R013	1-216-833-11	RES-CHIP 10K 5% 1/16W	
R014	1-216-801-11	METAL CHIP 22 5% 1/16W	
R035	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R036	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R037	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R038	1-216-829-11	METAL CHIP 4.7K 5% 1/16W	
R039	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R041	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R042	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R044	1-216-809-11	METAL CHIP 100 5% 1/16W	
R048	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R049	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R050	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R053	1-216-833-11	RES-CHIP 10K 5% 1/16W	
R202	1-216-801-11	METAL CHIP 22 5% 1/16W	
R203	1-216-833-11	RES-CHIP 10K 5% 1/16W	
R204	1-216-833-11	RES-CHIP 10K 5% 1/16W	
R205	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R206	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R207	1-216-833-11	RES-CHIP 10K 5% 1/16W	
R212	1-216-864-11	METAL CHIP 0 5% 1/16W	
R213	1-216-801-11	METAL CHIP 22 5% 1/16W	
R217	1-216-833-11	RES-CHIP 10K 5% 1/16W	
R222	1-216-833-11	RES-CHIP 10K 5% 1/16W	
R223	1-216-833-11	RES-CHIP 10K 5% 1/16W	
R225	1-216-833-11	RES-CHIP 10K 5% 1/16W	
R227	1-216-813-11	METAL CHIP 220 5% 1/16W	
R228	1-216-813-11	METAL CHIP 220 5% 1/16W	
R229	1-216-813-11	METAL CHIP 220 5% 1/16W	
R230	1-216-813-11	METAL CHIP 220 5% 1/16W	
R231	1-216-813-11	METAL CHIP 220 5% 1/16W	
R232	1-216-813-11	METAL CHIP 220 5% 1/16W	

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Ref. No.	Part No.	Description			Remark
R235	1-216-864-11	METAL CHIP	0	5%	1/16W
R237	1-216-216-00	RES-CHIP	5.6K	5%	1/8W
					(MY, SP, HK, TH, TW, CH)
R237	1-216-220-00	RES-CHIP	8.2K	5%	1/8W
					(AUS)
R237	1-216-230-00	RES-CHIP	22K	5%	1/8W
					(AEP, UK, EA)
R237	1-216-238-91	RES-CHIP	47K	5%	1/8W
					(E, MX, AR)
R238	1-216-238-91	RES-CHIP	47K	5%	1/8W
R239	1-216-220-00	RES-CHIP	8.2K	5%	1/8W
					(CH)
R239	1-216-230-00	RES-CHIP	22K	5%	1/8W
					(E, MX, AR, AUS)
R239	1-216-238-91	RES-CHIP	47K	5%	1/8W
					(MY, SP, HK, TH, TW)
R239	1-216-246-00	RES-CHIP	100K	5%	1/8W
					(AEP, UK, EA)
R240	1-216-246-00	RES-CHIP	100K	5%	1/8W
R241	1-216-238-91	RES-CHIP	47K	5%	1/8W
R242	1-216-833-11	RES-CHIP	10K	5%	1/16W
R243	1-216-833-11	RES-CHIP	10K	5%	1/16W
R244	1-216-833-11	RES-CHIP	10K	5%	1/16W
R305	1-218-879-11	METAL CHIP	22K	0.5%	1/16W
R306	1-218-831-11	METAL CHIP	220	0.5%	1/16W
R307	1-218-883-11	METAL CHIP	33K	0.5%	1/16W
R308	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R309	1-216-838-11	METAL CHIP	27K	5%	1/16W
R310	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R313	1-216-833-11	RES-CHIP	10K	5%	1/16W
R314	1-216-833-11	RES-CHIP	10K	5%	1/16W
R315	1-216-833-11	RES-CHIP	10K	5%	1/16W
R316	1-218-855-11	METAL CHIP	2.2K	0.5%	1/16W
R317	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R318	1-216-849-11	METAL CHIP	220K	5%	1/16W
R319	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R320	1-218-853-11	METAL CHIP	1.8K	0.5%	1/16W
R321	1-218-847-11	METAL CHIP	1K	0.5%	1/16W
R322	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R323	1-216-833-11	RES-CHIP	10K	5%	1/16W
R324	1-216-833-11	RES-CHIP	10K	5%	1/16W
R325	1-216-833-11	RES-CHIP	10K	5%	1/16W
R326	1-216-833-11	RES-CHIP	10K	5%	1/16W
R327	1-216-833-11	RES-CHIP	10K	5%	1/16W
R328	1-216-833-11	RES-CHIP	10K	5%	1/16W
R329	1-216-833-11	RES-CHIP	10K	5%	1/16W
R330	1-216-833-11	RES-CHIP	10K	5%	1/16W
R331	1-216-833-11	RES-CHIP	10K	5%	1/16W
R332	1-216-833-11	RES-CHIP	10K	5%	1/16W
R337	1-216-809-11	METAL CHIP	100	5%	1/16W
R338	1-216-833-11	RES-CHIP	10K	5%	1/16W
R339	1-216-833-11	RES-CHIP	10K	5%	1/16W
R340	1-216-833-11	RES-CHIP	10K	5%	1/16W
R341	1-216-809-11	METAL CHIP	100	5%	1/16W
R403	1-216-833-11	RES-CHIP	10K	5%	1/16W
R404	1-216-864-11	METAL CHIP	0	5%	1/16W
R405	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R406	1-216-822-11	METAL CHIP	1.2K	5%	1/16W
R407	1-216-833-11	RES-CHIP	10K	5%	1/16W

Ref. No.	Part No.	Description			Remark
R409	1-216-864-11	METAL CHIP	0	5%	1/16W
R410	1-216-821-11	METAL CHIP	1K	5%	1/16W
R411	1-216-833-11	RES-CHIP	10K	5%	1/16W
R413	1-216-864-11	METAL CHIP	0	5%	1/16W
R426	1-216-813-11	METAL CHIP	220	5%	1/16W
R427	1-216-813-11	METAL CHIP	220	5%	1/16W
R428	1-216-813-11	METAL CHIP	220	5%	1/16W
R429	1-216-813-11	METAL CHIP	220	5%	1/16W
R430	1-216-813-11	METAL CHIP	220	5%	1/16W
R431	1-216-813-11	METAL CHIP	220	5%	1/16W
R519	1-216-809-11	METAL CHIP	100	5%	1/16W
R520	1-216-833-11	RES-CHIP	10K	5%	1/16W
R521	1-216-833-11	RES-CHIP	10K	5%	1/16W
R522	1-216-833-11	RES-CHIP	10K	5%	1/16W
R527	1-216-833-11	RES-CHIP	10K	5%	1/16W
R528	1-216-833-11	RES-CHIP	10K	5%	1/16W
R530	1-216-864-11	METAL CHIP	0	5%	1/16W
R537	1-216-806-11	RES-CHIP	56	5%	1/16W
R539	1-216-864-11	METAL CHIP	0	5%	1/16W
R540	1-216-864-11	METAL CHIP	0	5%	1/16W
R541	1-216-864-11	METAL CHIP	0	5%	1/16W
R543	1-216-864-11	METAL CHIP	0	5%	1/16W
R544	1-216-864-11	METAL CHIP	0	5%	1/16W
R604	1-216-833-11	RES-CHIP	10K	5%	1/16W
R605	1-216-833-11	RES-CHIP	10K	5%	1/16W
R606	1-216-833-11	RES-CHIP	10K	5%	1/16W
R630	1-216-833-11	RES-CHIP	10K	5%	1/16W
R631	1-216-833-11	RES-CHIP	10K	5%	1/16W
R632	1-216-833-11	RES-CHIP	10K	5%	1/16W
R633	1-216-833-11	RES-CHIP	10K	5%	1/16W
R634	1-216-833-11	RES-CHIP	10K	5%	1/16W
R635	1-216-833-11	RES-CHIP	10K	5%	1/16W
R636	1-216-815-11	METAL CHIP	330	5%	1/16W
R637	1-216-809-11	METAL CHIP	100	5%	1/16W
R638	1-216-809-11	METAL CHIP	100	5%	1/16W
R639	1-216-809-11	METAL CHIP	100	5%	1/16W
R640	1-216-809-11	METAL CHIP	100	5%	1/16W
R641	1-216-809-11	METAL CHIP	100	5%	1/16W
R642	1-216-809-11	METAL CHIP	100	5%	1/16W
R643	1-216-815-11	METAL CHIP	330	5%	1/16W
R647	1-216-833-11	RES-CHIP	10K	5%	1/16W
R701	1-216-805-11	METAL CHIP	47	5%	1/16W
R702	1-216-817-11	METAL CHIP	470	5%	1/16W
R703	1-216-817-11	METAL CHIP	470	5%	1/16W
R704	1-216-817-11	METAL CHIP	470	5%	1/16W
R705	1-216-817-11	METAL CHIP	470	5%	1/16W
R706	1-216-821-11	METAL CHIP	1K	5%	1/16W
R707	1-216-844-11	METAL CHIP	82K	5%	1/16W
R708	1-216-844-11	METAL CHIP	82K	5%	1/16W
R709	1-216-844-11	METAL CHIP	82K	5%	1/16W
R710	1-216-844-11	METAL CHIP	82K	5%	1/16W
R711	1-216-833-11	RES-CHIP	10K	5%	1/16W
R712	1-216-839-11	METAL CHIP	33K	5%	1/16W
R720	1-216-821-11	METAL CHIP	1K	5%	1/16W
R721	1-216-821-11	METAL CHIP	1K	5%	1/16W
R722	1-216-801-11	METAL CHIP	22	5%	1/16W
R748	1-216-833-11	RES-CHIP	10K	5%	1/16W

Ref. No.	Part No.	Description			Remark
R751	1-216-821-11	METAL CHIP	1K	5%	1/16W
R752	1-216-821-11	METAL CHIP	1K	5%	1/16W
R755	1-216-833-11	RES-CHIP	10K	5%	1/16W
R757	1-216-864-11	METAL CHIP	0	5%	1/16W
R758	1-216-864-11	METAL CHIP	0	5%	1/16W
R801	1-216-841-11	METAL CHIP	47K	5%	1/16W
R802	1-216-841-11	METAL CHIP	47K	5%	1/16W
R803	1-216-841-11	METAL CHIP	47K	5%	1/16W
R804	1-216-841-11	METAL CHIP	47K	5%	1/16W
R805	1-216-840-11	METAL CHIP	39K	5%	1/16W
R806	1-216-840-11	METAL CHIP	39K	5%	1/16W
R807	1-216-835-11	METAL CHIP	15K	5%	1/16W
R808	1-216-835-11	METAL CHIP	15K	5%	1/16W
R809	1-216-844-11	METAL CHIP	82K	5%	1/16W
R810	1-216-844-11	METAL CHIP	82K	5%	1/16W
R812	1-216-864-11	METAL CHIP	0	5%	1/16W
R813	1-216-864-11	METAL CHIP	0	5%	1/16W
R815	1-216-836-11	METAL CHIP	18K	5%	1/16W
R816	1-216-845-11	METAL CHIP	100K	5%	1/16W
R817	1-216-852-11	METAL CHIP	390K	5%	1/16W
R818	1-216-852-11	METAL CHIP	390K	5%	1/16W
R819	1-216-849-11	METAL CHIP	220K	5%	1/16W
R820	1-216-851-11	METAL CHIP	330K	5%	1/16W
R821	1-216-840-11	METAL CHIP	39K	5%	1/16W
R822	1-216-845-11	METAL CHIP	100K	5%	1/16W
R823	1-216-833-11	RES-CHIP	10K	5%	1/16W
R824	1-216-833-11	RES-CHIP	10K	5%	1/16W
R825	1-216-830-11	METAL CHIP	5.6K	5%	1/16W
R831	1-216-833-11	RES-CHIP	10K	5%	1/16W
R832	1-216-833-11	RES-CHIP	10K	5%	1/16W
R834	1-216-847-11	METAL CHIP	150K	5%	1/16W
R835	1-216-847-11	METAL CHIP	150K	5%	1/16W
R836	1-216-847-11	METAL CHIP	150K	5%	1/16W
R837	1-216-844-11	METAL CHIP	82K	5%	1/16W
R838	1-216-848-11	METAL CHIP	180K	5%	1/16W
R839	1-216-848-11	METAL CHIP	180K	5%	1/16W
R840	1-216-848-11	METAL CHIP	180K	5%	1/16W
R841	1-216-843-11	METAL CHIP	68K	5%	1/16W
R842	1-216-844-11	METAL CHIP	82K	5%	1/16W
R843	1-216-844-11	METAL CHIP	82K	5%	1/16W
R844	1-216-843-11	METAL CHIP	68K	5%	1/16W
R845	1-216-843-11	METAL CHIP	68K	5%	1/16W
R846	1-216-841-11	METAL CHIP	47K	5%	1/16W
R847	1-216-296-00	SHORT	0		
R851	1-216-833-11	RES-CHIP	10K	5%	1/16W
R852	1-216-833-11	RES-CHIP	10K	5%	1/16W
R853	1-216-833-11	RES-CHIP	10K	5%	1/16W
R854	1-216-833-11	RES-CHIP	10K	5%	1/16W
R855	1-216-834-11	METAL CHIP	12K	5%	1/16W
R856	1-216-836-11	METAL CHIP	18K	5%	1/16W
R857	1-218-899-11	METAL CHIP	150K	0.5%	1/16W
R858	1-218-899-11	METAL CHIP	150K	0.5%	1/16W
R859	1-218-889-11	METAL CHIP	56K	0.5%	1/16W
R860	1-218-889-11	METAL CHIP	56K	0.5%	1/16W
R861	1-216-296-00	SHORT	0		
R864	1-216-138-00	METAL CHIP	3.3	5%	1/8W
R867	1-216-833-11	RES-CHIP	10K	5%	1/16W
R868	1-216-833-11	RES-CHIP	10K	5%	1/16W
R869	1-216-833-11	RES-CHIP	10K	5%	1/16W
R870	1-216-815-11	METAL CHIP	330	5%	1/16W
R871	1-216-817-11	METAL CHIP	470	5%	1/16W
R872	1-216-815-11	METAL CHIP	330	5%	1/16W
R873	1-216-821-11	METAL CHIP	1K	5%	1/16W
R909	1-216-809-11	METAL CHIP	100	5%	1/16W
R912	1-216-809-11	METAL CHIP	100	5%	1/16W
R915	1-216-809-11	METAL CHIP	100	5%	1/16W
R918	1-216-809-11	METAL CHIP	100	5%	1/16W
		< COMPOSITION CIRCUIT BLOCK >			
* RB001	1-233-270-11	NETWORK, RES (8 GANG)	10K		
* RB201	1-233-270-11	NETWORK, RES (8 GANG)	10K		
* RB202	1-233-270-11	NETWORK, RES (8 GANG)	10K		
* RB203	1-233-270-11	NETWORK, RES (8 GANG)	10K		
* RB204	1-233-270-11	NETWORK, RES (8 GANG)	10K		
* RB402	1-233-270-11	NETWORK, RES (8 GANG)	10K		
* RB601	1-233-270-11	NETWORK, RES (8 GANG)	10K		
		< VARIABLE RESISTOR >			
RV401	1-223-583-11	RES, ADJ, CARBON	1K		
		< VIBRATOR >			
X001	1-781-188-21	OSCILLATOR, CRYSTAL (27MHz)			
X201	1-781-185-21	VIBRATOR, CERAMIC (12.5MHz)			
**********					
	1-676-972-11	MIC BOARD (EA, MY, SP, HK, TH, TW, CH)			
		**********			
		< CAPACITOR >			
C1601	1-162-306-11	CERAMIC	0.01uF	30%	16V
C1602	1-126-961-11	ELECT	2.2uF	20%	50V
C1603	1-162-294-31	CERAMIC	0.001uF	10%	50V
C1604	1-162-215-31	CERAMIC	47PF	5%	50V
C1605	1-162-290-31	CERAMIC	470PF	10%	50V
C1606	1-126-959-11	ELECT	0.47uF	20%	50V
C1607	1-162-215-31	CERAMIC	47PF	5%	50V
C1608	1-162-282-31	CERAMIC	100PF	10%	50V
C1609	1-126-961-11	ELECT	2.2uF	20%	50V
C1610	1-126-964-11	ELECT	10uF	20%	50V
C1611	1-126-964-11	ELECT	10uF	20%	50V
C1612	1-162-306-11	CERAMIC	0.01uF	30%	16V
C1613	1-162-306-11	CERAMIC	0.01uF	30%	16V
C1614	1-164-159-11	CERAMIC	0.1uF		50V
		< EARTH TERMINAL >			
* EPT1601	1-537-738-21	TERMINAL, EARTH			
		< FERRITE BEAD >			
FB1601	1-412-473-21	INDUCTOR	0uH		
FB1602	1-412-473-21	INDUCTOR	0uH		
		< IC >			
IC1601	8-759-634-51	IC M5218AP			

MIC | OUT SW | PANEL

Ref. No.	Part No.	Description			Remark
		< JACK >			
J1601	1-793-829-11	JACK, HEADPHONE (MIC)			
		< RESISTOR >			
R1601	1-249-429-11	CARBON	10K	5%	1/4W
R1602	1-249-417-11	CARBON	1K	5%	1/4W
R1603	1-249-441-11	CARBON	100K	5%	1/4W
R1604	1-249-417-11	CARBON	1K	5%	1/4W
R1605	1-249-433-11	CARBON	22K	5%	1/4W
R1606	1-249-429-11	CARBON	10K	5%	1/4W
R1607	1-247-885-00	CARBON	180K	5%	1/4W
R1608	1-247-807-31	CARBON	100	5%	1/4W
		< VARIABLE RESISTOR >			
RV1601	1-227-171-11	RES, VAR CARBON 50K (MIC VOL)			
**********					
	1-675-725-11	OUT SW BOARD			
		**********			
		< CONNECTOR >			
* CN709	1-568-943-11	PIN, CONNECTOR 5P			
CN715	1-506-481-11	PIN, CONNECTOR 2P			
		< SWITCH >			
S701	1-771-218-11	SWITCH, MICRO (MID OUT)			
S702	1-771-218-11	SWITCH, MICRO (LID)			
S708	1-771-218-11	SWITCH, MICRO (OUT)			
**********					
	A-4473-011-A	PANEL BOARD, COMPLETE (US, CND, AEP, UK, E, MX, AR, AUS)			
	A-4473-023-A	PANEL BOARD, COMPLETE (EA, MY, SP, HK, TW)			
	A-4473-683-A	PANEL BOARD, COMPLETE (TH)			
	A-4473-851-A	PANEL BOARD, COMPLETE (CH)			
		**********			
	4-226-723-01	HOLDER (FL)			
	4-949-935-41	CUSHION (FL)			
		< CAPACITOR >			
C691	1-162-286-31	CERAMIC	220PF	10%	50V
C692	1-162-286-31	CERAMIC	220PF	10%	50V
C701	1-162-306-11	CERAMIC	0.01uF	30%	16V
C702	1-124-589-11	ELECT	47uF	20%	16V
C703	1-162-290-31	CERAMIC	470PF	10%	50V
C704	1-162-294-31	CERAMIC	0.001uF	10%	50V
C705	1-162-294-31	CERAMIC	0.001uF	10%	50V
C711	1-162-286-31	CERAMIC	220PF	10%	50V
C712	1-162-286-31	CERAMIC	220PF	10%	50V
C713	1-162-286-31	CERAMIC	220PF	10%	50V
C714	1-162-286-31	CERAMIC	220PF	10%	50V
C715	1-162-286-31	CERAMIC	220PF	10%	50V
C716	1-162-286-31	CERAMIC	220PF	10%	50V
C717	1-162-286-31	CERAMIC	220PF	10%	50V
C718	1-162-286-31	CERAMIC	220PF	10%	50V
C719	1-162-286-31	CERAMIC	220PF	10%	50V
C720	1-162-286-31	CERAMIC	220PF	10%	50V

Ref. No.	Part No.	Description			Remark
C721	1-162-286-31	CERAMIC	220PF	10%	50V
C722	1-162-286-31	CERAMIC	220PF	10%	50V
C723	1-162-286-31	CERAMIC	220PF	10%	50V
C724	1-162-286-31	CERAMIC	220PF	10%	50V
C725	1-162-286-31	CERAMIC	220PF	10%	50V
C726	1-162-286-31	CERAMIC	220PF	10%	50V
C727	1-162-286-31	CERAMIC	220PF	10%	50V
C728	1-162-286-31	CERAMIC	220PF	10%	50V
C731	1-124-261-00	ELECT	10uF	20%	50V
C732	1-124-261-00	ELECT	10uF	20%	50V
C751	1-162-306-11	CERAMIC	0.01uF	30%	16V
C752	1-124-589-11	ELECT	47uF	20%	16V
C755	1-162-306-11	CERAMIC	0.01uF	30%	16V
C756	1-126-157-11	ELECT	10uF	20%	16V
C757	1-162-290-31	CERAMIC	470PF	10%	50V
C761	1-162-306-11	CERAMIC	0.01uF	30%	16V
C762	1-126-157-11	ELECT	10uF	20%	16V
C763	1-124-259-11	ELECT	4.7uF	20%	16V
C764	1-162-303-11	CERAMIC	0.0033uF	30%	16V
C765	1-126-157-11	ELECT	10uF	20%	16V
C766	1-126-157-11	ELECT	10uF	20%	16V
C767	1-126-157-11	ELECT	10uF	20%	16V
C768	1-162-294-31	CERAMIC	0.001uF	10%	50V
C769	1-162-294-31	CERAMIC	0.001uF	10%	50V
		< CONNECTOR >			
CN701	1-784-733-11	CONNECTOR, FFC 11P			
CN702	1-785-334-11	PIN, CONNECTOR (LIGHT ANGLE) 8P			
CN703	1-785-337-11	PIN, CONNECTOR (LIGHT ANGLE) 11P			
CN704	1-785-333-11	PIN, CONNECTOR (LIGHT ANGLE) 7P			
		< DIODE >			
D601	8-719-058-04	LED SEL5223S-TP15 (I/⏻)			
D602	8-719-058-04	LED SEL5223S-TP15 (TIMER SELECT)			
D603	8-719-058-64	LED SEL5823A-TP15 (V-GROOVE)			
D604	8-719-058-64	LED SEL5823A-TP15 (DSP)			
D691	8-719-050-84	DIODE RB441Q-40T-72			
D755	8-719-911-19	DIODE 1SS133T-72			
D756	8-719-911-19	DIODE 1SS133T-72			
D761	8-719-911-19	DIODE 1SS133T-72			
D762	8-719-911-19	DIODE 1SS133T-72			
D763	8-719-911-19	DIODE 1SS133T-72			
		< INDUCTOR >			
FB701	1-412-473-21	INDUCTOR	0uH		
FB702	1-412-473-21	INDUCTOR	0uH		
		< FLUORESCENT INDICATOR TUBE >			
FL701	1-517-958-11	INDICATOR TUBE, FLUORESCENT			
		< IC >			
IC701	8-759-680-20	IC TMP88CS77AF-1A86			
IC702	8-749-011-05	IC GP1U28X			
IC703	8-759-663-65	IC M35501P			
IC704	8-759-083-77	IC BA3830F			

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q601	8-729-900-80	TRANSISTOR	BA1A4M-TP		
Q602	8-729-900-80	TRANSISTOR	BA1A4M-TP		
Q603	8-729-900-80	TRANSISTOR	BA1A4M-TP		
Q663	8-729-900-80	TRANSISTOR	BA1A4M-TP		
Q664	8-729-900-80	TRANSISTOR	BA1A4M-TP		
Q665	8-729-900-80	TRANSISTOR	BA1A4M-TP		
Q690	8-729-119-78	TRANSISTOR	2SC2785TP-HFE		
Q691	8-729-140-04	TRANSISTOR	2SB1116-TP-LK		
Q692	8-729-140-04	TRANSISTOR	2SB1116-TP-LK		
		< RESISTOR >			
R600	1-249-429-11	CARBON	10K	5%	1/4W
R601	1-249-410-11	CARBON	270	5%	1/4W
R602	1-249-411-11	CARBON	330	5%	1/4W
R603	1-249-413-11	CARBON	470	5%	1/4W
R604	1-249-414-11	CARBON	560	5%	1/4W
R605	1-249-415-11	CARBON	680	5%	1/4W
R606	1-249-417-11	CARBON	1K	5%	1/4W
R607	1-249-418-11	CARBON	1.2K	5%	1/4W
R620	1-249-429-11	CARBON	10K	5%	1/4W
R621	1-249-410-11	CARBON	270	5%	1/4W
R622	1-249-411-11	CARBON	330	5%	1/4W
R623	1-249-413-11	CARBON	470	5%	1/4W
R624	1-249-414-11	CARBON	560	5%	1/4W
R625	1-249-415-11	CARBON	680	5%	1/4W
R626	1-249-417-11	CARBON	1K	5%	1/4W
R627	1-249-418-11	CARBON	1.2K	5%	1/4W
R640	1-249-429-11	CARBON	10K	5%	1/4W
R655	1-249-429-11	CARBON	10K	5%	1/4W
R656	1-249-429-11	CARBON	10K	5%	1/4W
R671	1-249-414-11	CARBON	560	5%	1/4W
R672	1-249-414-11	CARBON	560	5%	1/4W
R673	1-249-409-11	CARBON	220	5%	1/4W
R674	1-249-409-11	CARBON	220	5%	1/4W
R693	1-249-437-11	CARBON	47K	5%	1/4W
R695	1-249-417-11	CARBON	1K	5%	1/4W
R696	1-249-437-11	CARBON	47K	5%	1/4W
R697	1-249-437-11	CARBON	47K	5%	1/4W
R698	1-249-417-11	CARBON	1K	5%	1/4W
R701	1-247-903-00	CARBON	1M	5%	1/4W
R702	1-249-401-11	CARBON	47	5%	1/4W
R703	1-249-401-11	CARBON	47	5%	1/4W
R704	1-249-425-11	CARBON	4.7K	5%	1/4W
R705	1-249-425-11	CARBON	4.7K	5%	1/4W
R706	1-249-429-11	CARBON	10K	5%	1/4W
R707	1-249-429-11	CARBON	10K	5%	1/4W
R708	1-249-429-11	CARBON	10K	5%	1/4W
R709	1-249-429-11	CARBON	10K	5%	1/4W
R710	1-249-429-11	CARBON	10K	5%	1/4W
R711	1-247-807-31	CARBON	100	5%	1/4W (EXCEPT TH)
R712	1-247-807-31	CARBON	100	5%	1/4W
R713	1-249-441-11	CARBON	100K	5%	1/4W
R714	1-249-441-11	CARBON	100K	5%	1/4W
R715	1-249-441-11	CARBON	100K	5%	1/4W
R716	1-249-441-11	CARBON	100K	5%	1/4W
R717	1-249-441-11	CARBON	100K	5%	1/4W
R718	1-249-441-11	CARBON	100K	5%	1/4W
R719	1-249-441-11	CARBON	100K	5%	1/4W
R720	1-249-441-11	CARBON	100K	5%	1/4W
R721	1-249-441-11	CARBON	100K	5%	1/4W
R722	1-249-441-11	CARBON	100K	5%	1/4W
R723	1-249-441-11	CARBON	100K	5%	1/4W
R724	1-249-441-11	CARBON	100K	5%	1/4W
R725	1-249-441-11	CARBON	100K	5%	1/4W
R726	1-249-441-11	CARBON	100K	5%	1/4W
R727	1-249-441-11	CARBON	100K	5%	1/4W
R728	1-249-441-11	CARBON	100K	5%	1/4W
R729	1-249-441-11	CARBON	100K	5%	1/4W
R730	1-249-441-11	CARBON	100K	5%	1/4W
R731	1-249-441-11	CARBON	100K	5%	1/4W
R732	1-249-441-11	CARBON	100K	5%	1/4W
R733	1-249-441-11	CARBON	100K	5%	1/4W
R734	1-249-429-11	CARBON	10K	5%	1/4W
R737	1-247-807-31	CARBON	100	5%	1/4W
R750	1-249-429-11	CARBON	10K	5%	1/4W
R755	1-249-417-11	CARBON	1K	5%	1/4W
R757	1-247-807-31	CARBON	100	5%	1/4W
R758	1-247-807-31	CARBON	100	5%	1/4W
R759	1-247-807-31	CARBON	100	5%	1/4W
R762	1-249-435-11	CARBON	33K	5%	1/4W
R763	1-247-895-00	CARBON	470K	5%	1/4W
R764	1-247-893-11	CARBON	390K	5%	1/4W
R765	1-247-893-11	CARBON	390K	5%	1/4W
R766	1-249-441-11	CARBON	100K	5%	1/4W
R767	1-249-441-11	CARBON	100K	5%	1/4W
R768	1-249-429-11	CARBON	10K	5%	1/4W (EA, MY, SP, HK, TH, TW, CH)
R769	1-249-440-11	CARBON	82K	5%	1/4W (EA, MY, SP, HK, TH, TW, CH)
R770	1-249-417-11	CARBON	1K	5%	1/4W (EA, MY, SP, HK, TH, TW, CH)
R771	1-249-433-11	CARBON	22K	5%	1/4W
R773	1-249-436-11	CARBON	39K	5%	1/4W
R774	1-249-420-11	CARBON	1.8K	5%	1/4W
R801	1-249-437-11	CARBON	47K	5%	1/4W
R802	1-249-437-11	CARBON	47K	5%	1/4W
R803	1-249-437-11	CARBON	47K	5%	1/4W
R804	1-249-437-11	CARBON	47K	5%	1/4W
R805	1-249-437-11	CARBON	47K	5%	1/4W
R806	1-249-437-11	CARBON	47K	5%	1/4W
R807	1-249-437-11	CARBON	47K	5%	1/4W
R808	1-249-437-11	CARBON	47K	5%	1/4W
R809	1-249-437-11	CARBON	47K	5%	1/4W
R810	1-249-437-11	CARBON	47K	5%	1/4W
R811	1-249-437-11	CARBON	47K	5%	1/4W
R812	1-249-437-11	CARBON	47K	5%	1/4W
R813	1-249-437-11	CARBON	47K	5%	1/4W
R814	1-249-437-11	CARBON	47K	5%	1/4W
R815	1-249-437-11	CARBON	47K	5%	1/4W
R816	1-249-437-11	CARBON	47K	5%	1/4W
R817	1-249-437-11	CARBON	47K	5%	1/4W

PANEL | SENSOR | SENSOR 2 | SUB PANEL

Ref. No.	Part No.	Description	Remark
		< SWITCH >	
S601	1-762-875-21	SWITCH, KEYBOARD (I/⏻)	
S602	1-762-875-21	SWITCH, KEYBOARD (DISPLAY)	
S603	1-762-875-21	SWITCH, KEYBOARD (FUNCTION)	
S604	1-762-875-21	SWITCH, KEYBOARD (SELECT)	
S605	1-762-875-21	SWITCH, KEYBOARD (RETURN)	
S606	1-762-875-21	SWITCH, KEYBOARD (PREVIOUS)	
S621	1-762-875-21	SWITCH, KEYBOARD (NEXT)	
S622	1-762-875-21	SWITCH, KEYBOARD (DSP)	
S623	1-762-875-21	SWITCH, KEYBOARD (V-GROOVE)	
S624	1-762-875-21	SWITCH, KEYBOARD (MODE SELECT)	
S625	1-762-875-21	SWITCH, KEYBOARD (TITLE)	
S626	1-762-875-21	SWITCH, KEYBOARD (DVD MENU)	
		< VIBRATOR >	
X701	1-781-312-11	VIBRATOR, CERAMIC (12.5MHz)	
**********			
	1-675-726-11	SENSOR BOARD	
		**********	
	4-964-461-02	HOLDER (SENSOR)	
		< CONNECTOR >	
CN708	1-506-481-11	PIN, CONNECTOR 2P	
		< LED >	
D704	8-719-055-84	LED GL528VS1 (DISC IN DETECT SENSOR)	
		< RESISTOR >	
R711	1-249-415-11	CARBON 680 5% 1/4W	
**********			
	1-675-727-11	SENSOR 2 BOARD	
		**********	
		< PHOTO TRANSISTOR >	
Q703	8-729-926-31	PHOTO TRANISTOR PT483F1	
**********			
	A-4473-013-A	SUB PANEL BOARD, COMPLETE (EXCEPT TH, CH)	
	A-4473-680-A	SUB PANEL BOARD, COMPLETE (TH)	
	A-4473-848-A	SUB PANEL BOARD, COMPLETE (CH)	
		**********	
		< CAPACITOR >	
C615	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C771	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C772	1-162-306-11	CERAMIC 0.01uF 30% 16V	
		< LED >	
D605	8-719-058-64	LED SEL5823A-TP15 (SET UP MODE)	
D606	8-719-058-64	LED SEL5823A-TP15 (SOUND MODE)	
D607	8-719-058-64	LED SEL5823A-TP15 (PRO LOGIC)	
D608	8-719-058-64	LED SEL5823A-TP15 (DVD 5.1CH)	
D609	8-719-058-03	LED SEL5423E-TP15 (TAPE B ►)	
D610	8-719-058-03	LED SEL5423E-TP15 (TAPE B ◄)	
D611	8-719-058-03	LED SEL5423E-TP15 (TAPE A ►)	
D612	8-719-058-03	LED SEL5423E-TP15 (TAPE A ◄)	
D613	8-719-058-04	LED SEL5223S-TP15 (REC PAUSE/START)	
D615	8-719-072-82	LED SELU5E20C-STP15 (ILLUMINATION)	
D617	8-719-058-64	LED SEL5823A-TP15 (GROOVE-EX)	
D618	8-719-058-64	LED SEL5823A-TP15 (GROOVE)	
D652	8-719-056-13	LED SML79423C-TP15 (DVD ►II)	
		< EARTH TERMINAL >	
* ETP701	1-537-738-21	TERMINAL, EARTH	
		< TRANSISTOR >	
Q605	8-729-900-80	TRANSISTOR BA1A4M-TP	
Q607	8-729-900-80	TRANSISTOR BA1A4M-TP	
Q609	8-729-900-80	TRANSISTOR BA1A4M-TP	
Q611	8-729-900-80	TRANSISTOR BA1A4M-TP	
Q613	8-729-900-80	TRANSISTOR BA1A4M-TP	
Q615	8-729-900-80	TRANSISTOR BA1A4M-TP	
Q617	8-729-900-80	TRANSISTOR BA1A4M-TP	
Q652	8-729-900-80	TRANSISTOR BA1A4M-TP	
		< RESISTOR >	
R608	1-249-420-11	CARBON 1.8K 5% 1/4W	
R609	1-249-422-11	CARBON 2.7K 5% 1/4W	
R610	1-247-843-11	CARBON 3.3K 5% 1/4W	
R611	1-249-425-11	CARBON 4.7K 5% 1/4W	
R612	1-249-427-11	CARBON 6.8K 5% 1/4W	
R613	1-249-429-11	CARBON 10K 5% 1/4W	
R614	1-249-431-11	CARBON 15K 5% 1/4W	
R615	1-249-434-11	CARBON 27K 5% 1/4W	
R641	1-249-410-11	CARBON 270 5% 1/4W	
R642	1-249-411-11	CARBON 330 5% 1/4W	
R643	1-249-413-11	CARBON 470 5% 1/4W	
R644	1-249-414-11	CARBON 560 5% 1/4W	
R645	1-249-415-11	CARBON 680 5% 1/4W	
R646	1-249-417-11	CARBON 1K 5% 1/4W	
R647	1-249-418-11	CARBON 1.2K 5% 1/4W	
R648	1-249-420-11	CARBON 1.8K 5% 1/4W	
R649	1-249-422-11	CARBON 2.7K 5% 1/4W	
R650	1-247-843-11	CARBON 3.3K 5% 1/4W	
R651	1-249-425-11	CARBON 4.7K 5% 1/4W	
R652	1-249-427-11	CARBON 6.8K 5% 1/4W	
R675	1-249-409-11	CARBON 220 5% 1/4W	
R676	1-249-409-11	CARBON 220 5% 1/4W	
R677	1-249-409-11	CARBON 220 5% 1/4W	
R678	1-249-409-11	CARBON 220 5% 1/4W	
R679	1-249-409-11	CARBON 220 5% 1/4W	
R680	1-249-409-11	CARBON 220 5% 1/4W	
R681	1-249-409-11	CARBON 220 5% 1/4W	
R682	1-249-409-11	CARBON 220 5% 1/4W	
R683	1-249-409-11	CARBON 220 5% 1/4W	
R685	1-247-807-31	CARBON 100 5% 1/4W	
R687	1-249-409-11	CARBON 220 5% 1/4W	
R688	1-249-409-11	CARBON 220 5% 1/4W	
R691	1-249-409-11	CARBON 220 5% 1/4W	
R692	1-249-409-11	CARBON 220 5% 1/4W	
R752	1-249-401-11	CARBON 47 5% 1/4W	

Ref. No.	Part No.	Description			Remark
R753	1-247-807-31	CARBON	100	5%	1/4W
R754	1-247-807-31	CARBON	100	5%	1/4W
		< SWITCH >			
S607	1-762-875-21	SWITCH, KEYBOARD (HI-DUB)			
S608	1-762-875-21	SWITCH, KEYBOARD (REC PAUSE/START)			
S609	1-762-875-21	SWITCH, KEYBOARD (CD SYNC)			
S611	1-762-875-21	SWITCH, KEYBOARD (PRO LOGIC)			
S612	1-762-875-21	SWITCH, KEYBOARD (DVD 5.1CH)			
S613	1-762-875-21	SWITCH, KEYBOARD (GROOVE-EX)			
S614	1-762-875-21	SWITCH, KEYBOARD (GROOVE)			
S641	1-762-875-21	SWITCH, KEYBOARD (TAPE A ◄)			
S642	1-762-875-21	SWITCH, KEYBOARD (TAPE A ►)			
S643	1-762-875-21	SWITCH, KEYBOARD (TAPE B ◄)			
S644	1-762-875-21	SWITCH, KEYBOARD (TAPE B ►)			
S645	1-762-875-21	SWITCH, KEYBOARD (■)			
S646	1-762-875-21	SWITCH, KEYBOARD (DVD ►II)			
S647	1-762-875-21	SWITCH, KEYBOARD (TUNER/BAND)			
S649	1-762-875-21	SWITCH, KEYBOARD (►►)			
S650	1-762-875-21	SWITCH, KEYBOARD (◄◄)			
S651	1-762-875-21	SWITCH, KEYBOARD (►►I)			
S652	1-762-875-21	SWITCH, KEYBOARD (I◄◄)			
S701	1-772-502-11	CONTROLLER, JOY STICK (PUSH ENTER)			
S751	1-473-392-11	ENCODER, ROTARY (VOLUME)			
**********					
	1-676-976-11	SUB TRANS BOARD (US, CND, AEP, UK)			
		**********			
		< CAPACITOR >			
⚠C901	1-113-925-11	CERAMIC	0.01uF	20%	250V
C902	1-126-768-11	ELECT	2200uF	20%	16V
C903	1-126-933-11	ELECT	100uF	20%	16V
		< CONNECTOR >			
CN901	1-564-321-00	PIN, CONNECTOR 2P			
* CN902	1-564-321-21	PIN, CONNECTOR 2P			
CN903	1-785-330-11	PIN, CONNECTOR (LIGHT ANGLE) 4P			
		< DIODE >			
D901	8-719-024-99	DIODE 11ES2-NTA2B			
D902	8-719-024-99	DIODE 11ES2-NTA2B			
D903	8-719-024-99	DIODE 11ES2-NTA2B			
D904	8-719-024-99	DIODE 11ES2-NTA2B			
D906	8-719-911-19	DIODE 1SS133T-72			
		< IC >			
IC901	8-759-158-62	IC TA78057S			
		< TRANSISTOR >			
Q901	8-729-119-78	TRANSISTOR 2SC2785TP-HFE			
		< RESISTOR >			
R901	1-249-429-11	CARBON	10K	5%	1/4W
R902	1-249-441-11	CARBON	100K	5%	1/4W
		< RELAY >			
⚠RY901	1-755-276-11	RELAY, POWER			

Ref. No.	Part No.	Description			Remark
		< TRANSFORMER >			
⚠T901	1-435-210-11	TRANSFORMER, POWER (AEP, UK)			
⚠T901	1-435-209-11	TRANSFORMER, POWER (US, CND)			
**********					
	A-4428-632-A	SURR AMP BOARD, COMPLETE (AEP, UK)			
	A-4428-643-A	SURR AMP BOARD, COMPLETE (E, EA, MY, SP, HK, TW, MX, AR, AUS)			
	A-4428-994-A	SURR AMP BOARD, COMPLETE (US, CND)			
	A-4473-251-A	SURR AMP BOARD, COMPLETE (TH)			
	A-4473-831-A	SURR AMP BOARD, COMPLETE (CH)			
		**********			
		< CAPACITOR >			
C1001	1-126-963-11	ELECT	4.7uF	20%	50V (EXCEPT US, CND)
C1001	1-128-581-11	ELECT	4.7uF	20%	100V (US, CND)
C1002	1-162-286-31	CERAMIC	220PF	10%	50V
C1003	1-162-282-31	CERAMIC	100PF	10%	50V
C1004	1-104-664-11	ELECT	47uF	20%	10V
C1006	1-136-495-11	MYLAR	0.068uF	5%	50V
C1007	1-136-495-11	MYLAR	0.068uF	5%	50V
C1033	1-126-968-11	ELECT	100uF	20%	50V
C1034	1-126-968-11	ELECT	100uF	20%	50V
C1035	1-162-306-11	CERAMIC	0.01uF	30%	16V
C1036	1-162-306-11	CERAMIC	0.01uF	30%	16V
C1051	1-126-963-11	ELECT	4.7uF	20%	50V (EXCEPT US, CND)
C1051	1-128-581-11	ELECT	4.7uF	20%	100V (US, CND)
C1052	1-162-286-31	CERAMIC	220PF	10%	50V
C1053	1-162-282-31	CERAMIC	100PF	10%	50V
C1054	1-104-664-11	ELECT	47uF	20%	10V
C1056	1-136-495-11	MYLAR	0.068uF	5%	50V
C1057	1-136-495-11	MYLAR	0.068uF	5%	50V
C1081	1-126-963-11	ELECT	4.7uF	20%	50V (EXCEPT US, CND)
C1081	1-128-581-11	ELECT	4.7uF	20%	100V (US, CND)
C1082	1-162-286-31	CERAMIC	220PF	10%	50V
C1083	1-162-282-31	CERAMIC	100PF	10%	50V
C1084	1-104-664-11	ELECT	47uF	20%	10V
C1086	1-136-495-11	MYLAR	0.068uF	5%	50V
C1087	1-136-495-11	MYLAR	0.068uF	5%	50V
		< CONNECTOR >			
CN1001	1-691-767-11	PLUG (MICRO CONNECTOR) 5P			
* CN1002	1-691-774-11	PLUG (MICRO CONNECTOR) 12P			
		< DIODE >			
D1001	8-719-911-19	DIODE 1SS133T-72			
D1002	8-719-911-19	DIODE 1SS133T-72			
D1051	8-719-911-19	DIODE 1SS133T-72			
D1061	8-719-911-19	DIODE 1SS133T-72			
D1062	8-719-911-19	DIODE 1SS133T-72			
D1081	8-719-911-19	DIODE 1SS133T-72			

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

以阴影和⚠标志来识别的零部件在安全方面具有关键性。因此只能以规定号码的零部件来更换。

SURR AMP | TK

Ref. No.	Part No.	Description				Remark
		< EARTH TERMINAL >				
* EPT1001	1-537-738-21	TERMINAL, EARTH				
		< IC >				
IC1001	8-749-017-19	IC STK443-050				
		< TRANSISTOR >				
Q1001	8-729-140-84	TRANSISTOR	2SC1841TP-PAFAEA			
Q1051	8-729-140-84	TRANSISTOR	2SC1841TP-PAFAEA			
Q1061	8-729-119-76	TRANSISTOR	2SA1175-HFE			
Q1062	8-729-119-76	TRANSISTOR	2SA1175-HFE			
Q1063	8-729-900-36	TRANSISTOR	BA1F4M-TP			
Q1064	8-729-900-36	TRANSISTOR	BA1F4M-TP			
Q1081	8-729-140-84	TRANSISTOR	2SC1841TP-PAFAEA			
Q1091	8-729-140-84	TRANSISTOR	2SC1841TP-PAFAEA			
Q1092	8-729-119-78	TRANSISTOR	2SC2785TP-HFE			
		< RESISTOR >				
R1001	1-249-417-11	CARBON	1K	5%	1/4W	
R1002	1-249-438-11	CARBON	56K	5%	1/4W	
R1003	1-249-414-11	CARBON	560	5%	1/4W	
R1004	1-249-438-11	CARBON	56K	5%	1/4W	
⚠R1005	1-233-352-11	ENCAPSULATED COMPONENT				
R1006	1-249-417-11	CARBON	1K	5%	1/4W	
R1007	1-249-431-11	CARBON	15K	5%	1/4W	
R1008	1-249-441-11	CARBON	100K	5%	1/4W	
R1009	1-260-076-11	CARBON	10	5%	1/2W	
R1010	1-249-437-11	CARBON	47K	5%	1/4W	
⚠R1031	1-212-881-11	FUSIBLE	100	5%	1/4W	F
⚠R1032	1-212-881-11	FUSIBLE	100	5%	1/4W	F
⚠R1033	1-202-972-61	FUSIBLE	1	5%	1/4W	F
R1047	1-249-429-11	CARBON	10K	5%	1/4W	
R1051	1-249-417-11	CARBON	1K	5%	1/4W	
R1052	1-249-438-11	CARBON	56K	5%	1/4W	
R1053	1-249-414-11	CARBON	560	5%	1/4W	
R1054	1-249-438-11	CARBON	56K	5%	1/4W	
⚠R1055	1-233-352-11	ENCAPSULATED COMPONENT				
R1056	1-249-417-11	CARBON	1K	5%	1/4W	
R1057	1-249-431-11	CARBON	15K	5%	1/4W	
R1058	1-249-441-11	CARBON	100K	5%	1/4W	
R1059	1-260-076-11	CARBON	10	5%	1/2W	
R1060	1-249-438-11	CARBON	56K	5%	1/4W	
⚠R1061	1-215-889-00	METAL OXIDE	330	5%	2W	F
⚠R1062	1-215-889-00	METAL OXIDE	330	5%	2W	F
R1063	1-249-429-11	CARBON	10K	5%	1/4W	
R1064	1-249-429-11	CARBON	10K	5%	1/4W	
R1065	1-249-437-11	CARBON	47K	5%	1/4W	
R1066	1-249-437-11	CARBON	47K	5%	1/4W	
R1081	1-249-417-11	CARBON	1K	5%	1/4W	
R1082	1-249-438-11	CARBON	56K	5%	1/4W	
R1083	1-249-414-11	CARBON	560	5%	1/4W	
R1084	1-249-438-11	CARBON	56K	5%	1/4W	
⚠R1085	1-233-352-11	ENCAPSULATED COMPONENT				
R1086	1-249-417-11	CARBON	1K	5%	1/4W	
R1087	1-249-431-11	CARBON	15K	5%	1/4W	
R1088	1-249-441-11	CARBON	100K	5%	1/4W	
R1089	1-260-076-11	CARBON	10	5%	1/2W	
R1090	1-249-439-11	CARBON	68K	5%	1/4W	
R1091	1-249-441-11	CARBON	100K	5%	1/4W	
R1092	1-249-441-11	CARBON	100K	5%	1/4W	
R1093	1-249-439-11	CARBON	68K	5%	1/4W	
R1094	1-249-433-11	CARBON	22K	5%	1/4W	
		< RELAY >				
RY1061	1-515-920-11	RELAY (24V)				
RY1062	1-515-920-11	RELAY (24V)				
		< THERMISTOR (POSITIVE) >				
THP091	1-807-796-11	THERMISTOR				
**********						
	A-4725-157-A	TK BOARD, COMPLETE				
		**********				
		< CAPACITOR >				
C004	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C005	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	
C006	1-124-779-00	ELECT CHIP	10uF	20%	16V	
C007	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	
C008	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	
C009	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	
C010	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C011	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	
C012	1-124-779-00	ELECT CHIP	10uF	20%	16V	
C013	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	
C014	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	
C015	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	
C016	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C017	1-164-172-11	CERAMIC CHIP	0.0056uF	10%	25V	
C018	1-164-739-11	CERAMIC CHIP	560PF	5%	50V	
C019	1-164-172-11	CERAMIC CHIP	0.0056uF	10%	25V	
C020	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C021	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C022	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C023	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V	
C024	1-164-730-11	CERAMIC CHIP	0.0012uF	10%	50V	
C025	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V	
C026	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C027	1-164-217-11	CERAMIC CHIP	150PF	5%	50V	
C028	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C029	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C030	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C031	1-124-779-00	ELECT CHIP	10uF	20%	16V	
C032	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C033	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C034	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C035	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C036	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V	
C037	1-164-739-11	CERAMIC CHIP	560PF	5%	50V	
C038	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C039	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C040	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V	
C041	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	
C043	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V	

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Ne les remplacer que par une pièce portant le numéro spécifié.

以阴影和⚠标志来识别的零部件在安全方面具有关键性。因此只能以规定号码的零部件来更换。

Ref. No.	Part No.	Description			Remark
		< CONNECTOR >			
CN001	1-573-363-21	CONNECTOR, FFC/FPC 23P			
CN002	1-566-529-11	CONNECTOR, FPC (ZIF) 13P			
CN003	1-784-870-21	CONNECTOR, FFC (LIF (NON-ZIF)) 18P			
CN004	1-784-870-21	CONNECTOR, FFC (LIF (NON-ZIF)) 18P			
		< DIODE >			
D003	8-719-988-61	DIODE 1SS355TE-17			
		< IC >			
IC001	8-759-567-24	IC SSI33P3722			
		< COIL >			
L001	1-412-031-11	INDUCTOR CHIP 47uH			
		< TRANSISTOR >			
Q001	8-729-903-46	TRANSISTOR	2SB1132-T100-QR		
Q002	8-729-015-76	TRANSISTOR	UN5211-TX		
		< RESISTOR >			
R001	1-216-815-11	METAL CHIP	330	5%	1/16W
R002	1-216-809-11	METAL CHIP	100	5%	1/16W
R003	1-216-809-11	METAL CHIP	100	5%	1/16W
R004	1-216-837-11	METAL CHIP	22K	5%	1/16W
R005	1-216-013-00	METAL CHIP	33	5%	1/10W
R006	1-216-013-00	METAL CHIP	33	5%	1/10W
R007	1-216-841-11	METAL CHIP	47K	5%	1/16W
R008	1-216-797-11	METAL CHIP	10	5%	1/16W
R009	1-216-834-11	METAL CHIP	12K	5%	1/16W
R010	1-216-833-11	RES-CHIP	10K	5%	1/16W
R012	1-216-864-11	METAL CHIP	0	5%	1/16W
R014	1-216-864-11	METAL CHIP	0	5%	1/16W
R015	1-216-833-11	RES-CHIP	10K	5%	1/16W
R016	1-216-833-11	RES-CHIP	10K	5%	1/16W
R017	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R018	1-216-833-11	RES-CHIP	10K	5%	1/16W
R022	1-216-811-11	METAL CHIP	150	5%	1/16W
R023	1-216-820-11	METAL CHIP	820	5%	1/16W
R025	1-216-813-11	METAL CHIP	220	5%	1/16W
R026	1-216-864-11	METAL CHIP	0	5%	1/16W
R029	1-216-861-11	METAL CHIP	2.2M	5%	1/16W
**********					
	1-676-975-11	TRANS BOARD			
		**********			
	1-533-293-11	FUSE HOLDER			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S			
		< CONNECTOR >			
CN911	1-564-321-00	PIN, CONNECTOR 2P			(EXCEPT US, CND, AEP, UK)
* CN913	1-564-522-11	PLUG, CONNECTOR 7P			
* CN914	1-564-517-11	PLUG, CONNECTOR 2P			
		< FUSE >			
⚠F911	1-532-312-11	FUSE, GLASS CYLINDRICAL (DIA.5) (US)			

Ref. No.	Part No.	Description			Remark
⚠F911	1-532-505-31	FUSE (5A/250V)			(E, EA, MY, SP, HK, TW, MX, AR)
⚠F912	1-532-464-31	FUSE (2.5A/250V)			(E, EA, MY, SP, HK, TH, TW, AR, CH)
⚠F913	1-532-464-31	FUSE (2.5A/250V)			(E, EA, MY, SP, HK, TW, AR, AUS)
⚠F914	1-533-312-11	FUSE, GLASS CYLINDRICAL (DIA.5)			(10A/125V) (CND)
⚠F914	1-533-949-31	FUSE, CYLINDRICAL (TIME LUG) (T8A/250V)			(AEP, UK)
⚠F915	1-533-312-11	FUSE, GLASS CYLINDRICAL (DIA.5)			(10A/125V) (CND)
⚠F915	1-533-949-31	FUSE, CYLINDRICAL (TIME LUG) (T8A/250V)			(AEP, UK)
⚠F916	1-533-312-11	FUSE, GLASS CYLINDRICAL (DIA.5)			(10A/125V) (US, CND)
⚠F916	1-533-949-31	FUSE, CYLINDRICAL (TIME LUG) (T8A/250V)			(EXCEPT US, CND)
⚠F917	1-533-312-11	FUSE, GLASS CYLINDRICAL (DIA.5)			(10A/125V) (US, CND)
⚠F917	1-533-949-31	FUSE, CYLINDRICAL (TIME LUG) (T8A/250V)			(EXCEPT US, CND)
		< RESISTOR >			
⚠R911	1-219-120-11	FUSIBLE	0.15	5%	1/4W F
⚠R912	1-219-120-11	FUSIBLE	0.15	5%	1/4W F
⚠R913	1-219-119-81	FUSIBLE	0.1	5%	1/4W F
⚠R916	1-202-725-00	SOLID	3.3M	10%	1/2W (US, CND)
⚠R917	1-219-123-11	FUSIBLE	0.47	5%	1/4W F
		< SWITCH >			
⚠S911	1-771-291-11	SWITCH, POWER (VOLTAGE SELECTOR)			(E, EA, MY, SP, HK, TW, AR)
		< TRANSFORMER >			
⚠T902	1-435-475-11	TRANSFORMER, POWER (US, CND)			
⚠T902	1-435-391-11	TRANSFORMER, POWER (AEP, UK)			
⚠T902	1-435-392-11	TRANSFORMER, POWER			(EXCEPT US, CND, AEP, UK)
**********					
		MISCELLANEOUS			
		**********			
3	1-773-009-11	WIRE (FLAT TYPE) (15 CORE) (AEP, UK, CH)			
3	1-769-977-11	WIRE (FLAT TYPE) (13 CORE) (US, CND, E, EA, MX, HK, MY, SP, AR, TH, TW, MX, AR, AUS)			
4	1-693-481-11	TUNER (FM/AM) (US, CND)			
4	1-693-482-11	TUNER (FM/AM)			(EA, MY, SP, HK, TH, TW, MX, AR, AUS)
4	1-693-484-11	TUNER (FM/AM) (E)			
4	1-693-490-11	TUNER (FM/AM) (AEP, UK, CH)			
8	1-418-687-11	POWER BLOCK (US, CND)			
8	1-476-027-11	POWER BLOCK			(EA, MY, SP, HK, TH, TW, AUS, CH)
8	1-476-028-11	POWER BLOCK (AEP, UK)			
8	1-476-029-11	POWER BLOCK (E, MX, AR)			
69	1-769-938-11	WIRE (FLAT TYPE) (11 CORE)			
71	1-773-022-11	WIRE (FLAT TYPE) (15 CORE) (300mm)			
72	1-773-045-11	WIRE (FLAT TYPE) (17 CORE) (170mm)			
102	1-792-798-11	WIRE (FLAT TYPE) (17 CORE) (120mm)			

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以阴影和⚠标志来识别的零部件在安全方面具有关键性。因此只能以规定号码的零部件来更换。

Ref. No.	Part No.	Description	Remark
⚠110	1-690-608-11	CORD, POWER (AUS)	
⚠110	1-777-070-11	CORD, POWER (CND)	
⚠110	1-777-071-51	CORD, POWER (AEP, UK, EA, MY, SP, HK, TW)	
⚠110	1-782-464-21	CORD, POWER (CH)	
⚠110	1-783-531-11	CORD, POWER (US)	
⚠110	1-783-941-21	CORD, POWER (AR)	
⚠110	1-791-901-11	CORD, POWER (E, TH, MX)	
⚠111	1-569-008-21	ADAPTOR, CONVERSION 2P (EA, MY, SP, TW)	
⚠112	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (UK, HK)	
116	1-792-799-11	WIRE (FLAT TYPE) (10 CORE)	
117	1-792-800-11	WIRE (FLAT TYPE) (23 CORE) (160mm)	
118	1-792-801-11	WIRE (FLAT TYPE) (13 CORE) (190mm)	
119	1-792-802-11	WIRE (FLAT TYPE) (17 CORE) (170mm)	
120	1-792-797-11	WIRE (FLAT TYPE) (18 CORE) (PLATE: BLUE)	
121	1-792-797-21	WIRE (FLAT TYPE) (18 CORE) (PLATE: WHITE)	
⚠240	8-820-081-09	OPTICAL PICK-UP KHM-220AAA	
FAN101	1-763-072-11	FAN, D.C.	
HP101	A-2004-778-A	BASE (A) ASSY, HEAD	
HRPE101	A-2004-779-A	BASE (B) ASSY, HEAD	
M1	X-3378-241-1	MOTOR ASSY (CAPSTAN/REEL)	
M701	X-4950-341-1	MOTOR (CLAMP) ASSY	(ELEVATOR UP/DOWN)
M702	X-4950-342-1	MOTOR (LOADING) ASSY	
S707	1-418-045-01	ENCODER, ROTARY	(DISC TRAY ADDRESS DETECT)
⚠T902	1-435-475-11	TRANSFORMER, POWER (US, CND)	
⚠T902	1-435-391-11	TRANSFORMER, POWER (AEP, UK)	
⚠T902	1-435-392-11	TRANSFORMER, POWER	(EXCEPT US, CND, AEP, UK)

****

****
HARDWARE LIST
****

#1	7-685-871-01	SCREW +BVTT 3X6 (S)	
#2	7-685-146-11	SCREW +P 3X8 TYPE2 NON-SLIT	
#3	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#4	7-685-872-09	SCREW +BVTT 3X8 (S)	
#5	7-685-650-79	SCREW +BVTP 3X16 TYPE2 N-S	
#6	7-685-880-09	SCREW +BVTT 4X6 (S)	
#11	7-685-851-04	SCREW +BVTT 2X4 (S)	
#12	7-628-254-15	SCREW +PS 2.6X6	
#13	7-628-254-50	SCREW +PS 2.6X6	

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HCD-ZX70DVD

SONY

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Chinese Model

SUPPLEMENT-1

File this supplement with the service manual.

Subject: 1. Correction
2. Servicing Notes
3. Service Mode
4. Test Mode
5. Electrical Adjustments
6. Block Diagrams
7. IC Block Diagrams
8. IC Pin Function Description

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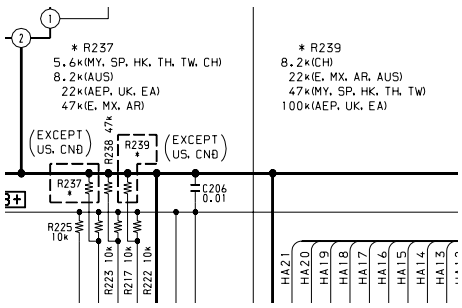
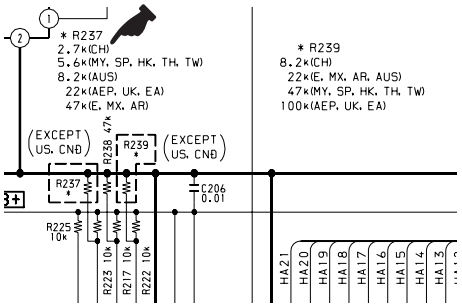
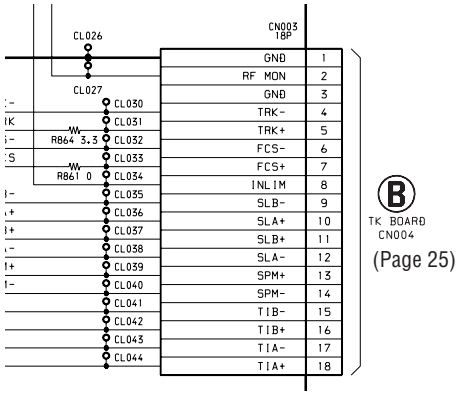
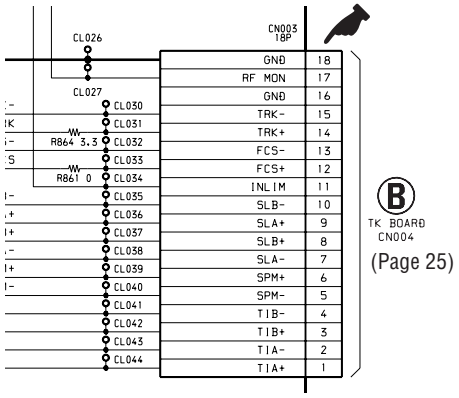
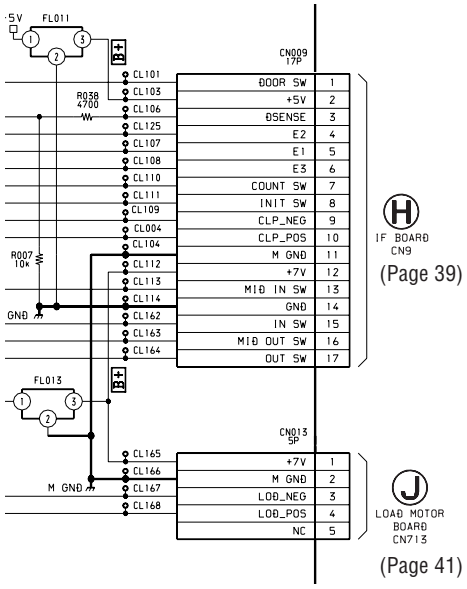
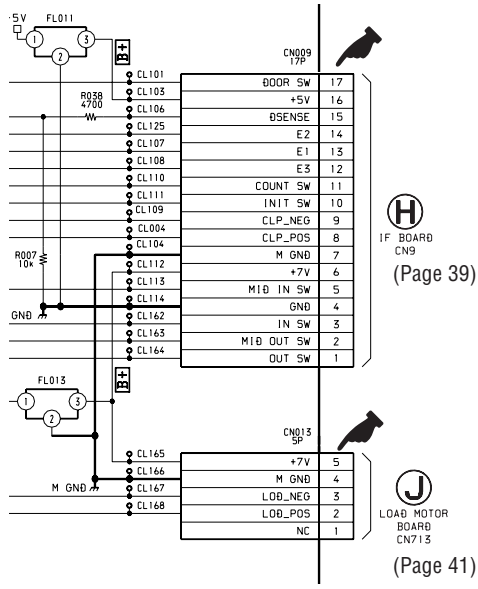
9-929-264-81

1. CORRECTION

1-1. SCHEMATIC DIAGRAMS

☛ : Indicates corrected portion.

Page	INCORRECT	CORRECT
28	**– MB Board (1/10) –** Location : B-7 	**– MB Board (1/10) –** Location : B-7 
35	**– MB Board (8/10) –** Location : G-18 	**– MB Board (8/10) –** Location : G-18 
37	**– MB Board (10/10) –** Location : I-14 	**– MB Board (10/10) –** Location : I-14 

- Abbreviation

AR	: Argentine model	MX	: Mexican model
AUS	: Australian model	MY	: Malaysia model
CH	: Chinese model	SP	: Singapore model
CND	: Canadian model	TH	: Thai model
EA	: Saudi Arabia model	TW	: Taiwan model
HK	: Hong Kong model		

1-2. ELECTRICAL PARTS LIST

Page	INCORRECT						CORRECT					
	Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
88	R237	1-216-216-00	RES-CHIP	5.6K	5%	1/8W (MY, SP, HK, TH, TW, CH)	R237	1-216-208-00	RES-CHIP	2.7K	5%	1/8W (CH)
							R237	1-216-216-00	RES-CHIP	5.6K	5%	1/8W (MY, SP, HK, TH, TW)

- Abbreviation
  CH : Chinese model
  HK : Hong Kong model
  MY : Malaysia model
  SP : Singapore model
  TH : Thai model
  TW : Taiwan model

2. SERVICING NOTES

CDM SHIP MODE

In sending the set back to the customers, place the set in the CDM SHIP MODE through the procedure given below.
If the dummy disc is not inserted in the set returned from the customers, ask customers for sending it or add new dummy disc (Part No.: 4-228- 906-01 DISC, DUMMY).
Procedure:

1. Press the I/⏻ button to turn the power on.
2. Press the ⏏ 1 button to open the disc tray 1, and put the dummy disc.
3. Press the I/⏻ button, and the disc tray will close and chucking the disc automatically.
4. Unplug the power cord when the demo display or clock display appears on the fluorescent display tube.

Note: Peel off the protection sheets on both sides, if present on the dummy disc.

NOTE OF REPLACING THE MB BOARD

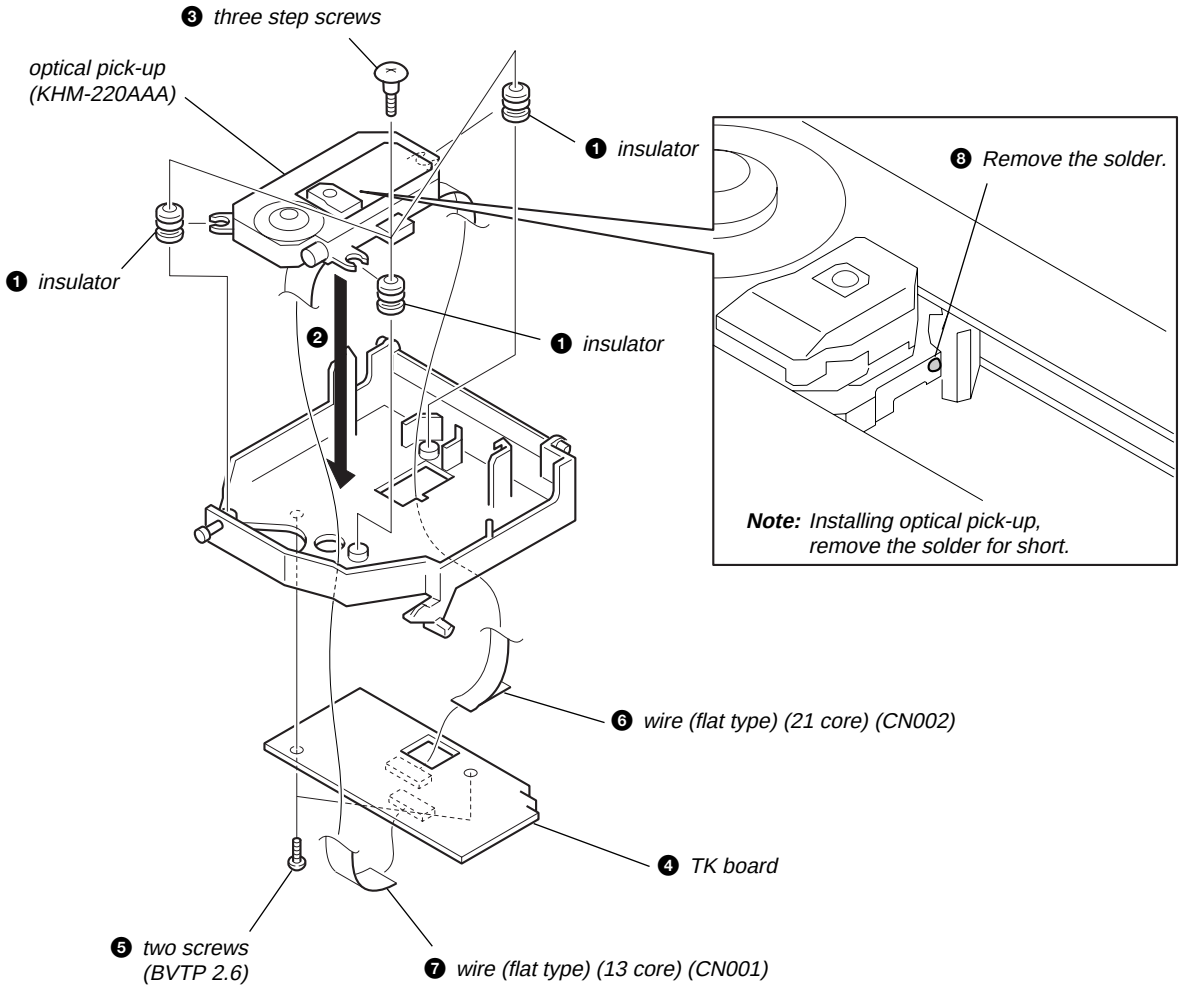
When replacing the MB board, since the adjustment value is not set up correctly, “Drive Auto Adjustment” can’t be performed. In this case, initialize Memory in the following procedures.

Procedure:

1. Set the test mode. (See page 7)
2. Press the 2 key of the remote commander, and set the “DRIVE MANUAL OPERATION”. (See page 13)
3. Press the 6 key of the remote commander, and set the “2-6, Memory Check”. (See page 15)
4. Press the CLEAR key of the remote commander, and initialize Memory.

NOTES ON INSTALLING OPTICAL PICK-UP

Note: Follow the assembly procedure in the numerical order given.



3. SERVICE MODE

[MC Cold Reset]

- The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

1. Press three buttons ■, DISPLAY, and DISC 5 simultaneously.
2. The fluorescent indicator tube displays "COLD RESET" and the set is reset.

Note: To initialize DVD, refer to "Initializing set up data" in the "4. TEST MODE 4-7. EMERGENCY HISTORY" (see page 15).

[MC Hot Reset]

- This mode resets the set with the preset data kept stored in the memory. The hot reset mode functions same as if the power cord is plugged in and out.

Procedure:

1. Press three buttons ■, DISPLAY, and DISC 1 simultaneously.
2. The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

[CD Service Mode]

- This mode can run the CD sled motor freely. Use this mode, for instance, when cleaning the optical pick-up.

Procedure:

1. Enter the test mode. (Refer to "4. TEST MODE" on page 7)
2. Press the 2 key of remote commander to enter the "Drive Manual Operation".
3. Press the 2 key of remote commander to enter the "Servo Control". (Refer to "2. Servo Control" on page 14)
4. Press the → (outward) or ← (inward) key of remote commander to move the sled motor.
5. To release this mode, press the I/⏻ button to turn the power OFF.

Note:
- Always move the pickup to most inside track when exiting from this mode. Otherwise, a disc will not be unloaded.
- Do not run the sled motor excessively, otherwise the gear can be chipped.
- Remote commander: RM-SD170 (Part No.: 1-418-911-11)

[VACS ON/OFF Mode]

- This mode is used to switch ON and OFF the VACS (Variable Attenuation Control System).

Procedure:

1. Press I/⏻ button to turn the set ON.
2. Press the PUSH ENTER and ■ buttons simultaneously. The message "VACS OFF" or "VACS ON" appears.

[Change-over of AM Tuner Step between 9 kHz and 10 kHz] (Except AEP, UK and Saudi Arabia models)

- A step of AM channels can be changed over between 9 kHz and 10 kHz.

Procedure:

1. Press I/⏻ button to turn the set ON.
2. Select the function "TUNER", and press TUNER/BAND button to select the BAND "AM".
3. Press I/⏻ button to turn the set OFF.
4. Press MODE SELECT and I/⏻ buttons simultaneously, and the display of fluorescent indicator tube changes to "AM 9 k STEP" or "AM 10 k STEP", and thus the channel step is changed over.

[GC Test Mode]

- This mode is used to check the software version, FL tube, LED, keyboard and VACS.

Procedure:

1. Press I/⏻ button to turn the set ON.
2. Press three buttons ■, DISPLAY, and DISC 2 simultaneously.
3. LEDs and fluorescent indicator tube are all turned on.
4. When you want to enter the software version display mode, press DISC 1. The model number and destination are displayed.
5. Each time DISC 1 is pressed, the display changes starting from Z-DVD version, MC version, GC version, VC version, DVD version, ST version, TC version, TA version, TM version and BR version in this order, and returns to the model number and destination display.
6. When DISC 3 is pressed while the version numbers are being displayed except model number and destination, year, month and day of the software creation appear. When DISC 3 is pressed again, the display returns to the software version display. When DISC 1 is pressed while year, month and day of the software creation are being displayed, the year, month and day of creation of the software versions are displayed in the same order of version display.
7. Press DISC 2 button, and the key check mode is activated.
8. In the key check mode, the fluorescent indicator tube displays "K 0 Vo 0 Stick N". Each time a button is pressed, "K 0" value increases. However, once a button is pressed, it is no longer taken into account.
   "Vo 0" value increases like 1, 2, 3 ... if rotating VOLUME knob in "+" direction, or it decreases like 0, 9, 8 ... if rotating in "–" direction.
   Moving the stick changes the "STICK N" display.
   When moved up : "STICK ↑"
   When moved down : "STICK ↓"
   When moved to the left : "STICK ←"
   When moved to the right : "STICK →"
9. Also when DISC 3 is pressed after lighting of all LEDs and FL tubes, value of VACS appears.
10. To exit from this mode, press three buttons in the same manner as step 1, or disconnect the power cord.

[MC Test Mode]

• This mode is used to check operations of the respective sections of Amplifier, Tuner, CD and Tape.

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. Press the three buttons of [■], [DISPLAY] and [DISC 3] simultaneously.
3. A message “TEST MODE” appears on the FL display tube.
4. When the joy stick is pushed up, GEQ increases to its maximum and a message “GEQ MAX” appears.
5. When the joy stick is pushed down, GEQ decreases to its minimum and a message “GEQ MIN” appears.
6. When the joy stick is pushed left or right, GEQ is set to flat and a message “GEQ FLAT” appears.
7. When the VOLUME control knob is turned clockwise even slightly, the sound volume increases to its maximum and a message “VOLUME MAX” appears for two seconds, then the display returns to the original display.
8. When the VOLUME control knob is turned counter-clockwise even slightly, the sound volume decreases to its minimum and a message “VOLUME MIN” appears for two seconds, then the display returns to the original display.
9. In the test mode, the default-preset channel is called even when the TUNER is selected and an attempt is made to call the preset channel that has been stored in memory, by operating the [⏮] and [⏭] buttons. (It means that the memory is cleared.)
10. When a tape is inserted in Deck B and recording is started, the input source function selects VIDEO automatically.
11. When [■] button is pressed to stop recording, the Deck B is selected and tape is rewound using the [◀◀] button, tape is rewound, tape is stops at around the record-starting position and playback of the recorded portion of the tape is started. If PAUSE is inserted even once during recording, tape is rewound to the position around the PAUSE position and is played back.
12. When the [HI-DUB] Button is press during playback of Deck B, either normal speed or high speed can be selected by this button.
13. Select the desired loop as follows. Press the [MODE SELECT] button and press the [PUSH ENTER] button in the “Set Up Mode”. Push the joy stick to right or left and press the [PUSH ENTER] button in the “Direction Set Up”. Push the joy stick to right or left and press [PUSH ENTER] at “Cycle”. Insert a test tape AMS-110A or AMS-RO to Deck A.
14. Press the [CD SYNCHRO] button to enter the AMS test mode.
15. After a tape is rewound first, the FF AMS is checked, and the mechanism is shut off after detecting the AMS signal twice.
16. Then the REW AMS is checked and the mechanism is shut off after detecting the AMS signal twice.
17. When the check is complete, a message of either OK or NG appears.
18. When you want to exit this mode, press the [I/⏻] button twice. The cold reset is enforced at the same time.

4. TEST MODE

4-1. GENERAL DESCRIPTION

The Test Mode allows you to make diagnosis and adjustment easily using the remote commander and monitor TV. The instructions, diagnostic results, etc. are given on the on-screen display (OSD).

4-2. STARTING TEST MODE

Press the [I/⏻] button to turn the set ON, and set the function to DVD. Press the [⏏ 1] button to insert the DVD disc, and wait for TOC reading is finish. Next, while pushing the [■] button and the [DISPLAY] and [DISC 4] button on the main unit at the same time, turn the regulator to the right to start Test Mode and display the menu shown below on the TV screen. At the bottom of the menu screen, the model name and revision number are displayed.
To execute each function, select the desired menu and press its number on the remote commander. To exit from Test Mode, press the [I/⏻] button.

Note: In the Test Mode, use the remote commander (RM-SD170) (Part No.: 1-418-911-11).

```
Test Mode Menu

0. Syscon Diagnosis
1. Drive Auto Adjustment
2. Drive Manual Operation
3. Mecha Aging
4. Emergency History
5. Version Information
6. Video Level Adjustment
                Exit: Power Key
_
Model   : HCX-984_xxxx
Revision: 1.xxx
```

4-3. SYSCON DIAGNOSIS

The same contents as board detail check by serial interface can be checked from the remote commander.
On the Test Mode Menu screen, press [10/0] key on the remote commander, and the following Check Menu will be displayed.

```
    ### Syscon Diagnosis ###
          Check Menu
0. Quit
1. All
2. Version
3. Peripheral
4. Servo
5. Supply
6. AV Decoder
7. Video
8. Audio
_
```

0. Quit

Quit the Syscon Diagnosis and return to the Test Mode Menu.

1. All

All items continuous check
This menu checks all diagnostic items continuously. Normally, all items are checked successively one after another automatically unless an error is found, but at a certain item that requires judgment through a visual check to the result, the following screen is displayed for the key entry.

```
    ### Syscon Diagnosis ###

         Diag All Check
          No. 2 Version

 2-3. ROM Check Sum
Check Sum = 2005



Press NEXT Key to Continue
Press PREV Key to Repeat
_
```

For the ROM Check, the check sum calculated by the Syscon is output, and therefore you must compare it with the specified value for confirmation.
Following the message, press [NEXT] key to go to the next item, or [PREV] key to repeat the same check again. To quit the diagnosis and return to the Check Menu screen, press the [■] or [ENTER] key. If an error occurred, the diagnosis is suspended and the error code is displayed as shown below.

```
    ### Syscon Diagnosis ###




 3-3. EEPROM Check
Error 03: EEPROM Write/Reed N
Address    : 00000001
Write Data : 2492
Read Data  : 2490
Press NEXT Key to Continue
Press PREV Key to Repeat
_
```

Press the [■] key to quit the diagnosis, or [PREV] key to repeat the same item where an error occurred, or [NEXT] key to continue the check from the item next to faulty item.

Selecting 2 and subsequent items calls the submenu screen of each item.
For example, if “5. Supply” is selected, the following submenu will be displayed.

```
    ### Syscon Diagnosis ###
          Check Menu
         No. 5 Supply
0. Quit
1. All
2. ARP Register Check
3. ARP to RAM Data Bus
4. ARP to RAM Address Bus
5. ARP RAM Check
_
```

0. Quit

Quit the submenu and return to the Check Menu.

1. All

All submenu items continuous check
This menu checks 2 and subsequent items successively. At the item where visual check is required for judgment or an error occurred, the checking is suspended and the message is output for key entry. Normally, all items are checked successively one after another automatically unless an error is found.

Selecting 2 and subsequent items executes respective menus and outputs the results.
For the contents of each submenu, see “Check Items List”.

General Description of Checking Method

2. Version

(2-2) Revision
ROM revision number is displayed.
Error: Not detected.
The revision number defined in the source file of ROM (IC206) is displayed with four digits.

(2-3) ROM Check Sum
Check sum is calculated.
Error: Not detected.
The 8-bit data are added at addresses 0x000F0000 ~ 0x002EFFFF of ROM (IC206) and the result is displayed with 4-digit hexadecimal number. Error is not detected. Compare the result with the specified value.

(2-4) Model Type
Model code is displayed.
Error: Not detected.
The model code read from EEPROM (IC201) is displayed with 2-digit hexadecimal number.

Model	Model No.
US and Canadian models	20
E, Mexican and Argentine models	22
AEP, UK and Saudi Arabia models	23
Australian model	24
Malaysia, Singapore, Hong Kong, Thai and Taiwan models	25
Chinese model	26

(2-5) Region
Region code is displayed.
Error: Not detected.
The region code determined from the model code is displayed.

3. Peripheral

(3-2) Gate Array Check
Data write → read, and accord check
Error 02: Gate array write/read discord
Data 0x00~0xFF are written to the address 0xF of gate array (IC601), then read and checked if they accord.

(3-3) EEPROM Check
Data write → read, and accord check
Error 03: EEPROM write/read discord
Data 0x9249, 0x2942, 0x4294 are written to addresses 0x00~0xFF of EEPROM (IC201), then read and checked. Before writing, the data are saved, then after checking, they are written to restore the contents of EEPROM.

4. Servo

(4-2) Servo DSP Check
Data write → read, and accord check
Error 12: Read data discord
Data 0x9249, 0x2942, 0x4294 are written to the address 0x602 of RAM in the Servo DSP (IC701), then read and checked.

(4-3) DSP Driver Test
Test signal data → DSP Driver
Error: Not detected.
Caution: Do not conduct this test with a mechanical deck connected.
The maximum voltage is applied to the Servo Driver IC (IC801, IC802). If mechanical deck is connected, the motor and optics could be damaged. Disconnect mechanical deck following the output message, then enter specified 4- or 5-digit number from the remote commander, and press the ENTER. The test is conducted only when the input data accord. Check the output level, then press the NEXT to finish the test.
This test is skipped if “All” is selected.

Supplement: How to disconnect mechanical deck
Disconnect flat cables connected to the CN002 and CN003 of MB board. Also, disconnect harness from the CN013 of MB board.

5. Supply

Caution: Do not conduct this check with a mechanical deck connected.
An access is made to the stream supply and servo control IC (IC303) and external RAM (IC304) using check data. If mechanical deck is connected, the motor and optics could be damaged. This check is also executed by the “All” menu item.

Supplement: How to disconnect mechanical deck
Disconnect flat cables connected to the CN002 and CN003 of MB board. Also, disconnect harness from the CN013 of MB board.

(5-2) ARP Register Check
Data write → read, and accord check
Error 08: ARP register write, and read data discord
Data 0x00 to 0xFF are written to the TMAX register (address 0xC6) in ARP (IC303), then they are read and checked.

(5-3) ARP to RAM Data Bus
Data write → read, and accord check
Error 09: ARP ←→ RAM data bus error
Data 0x0001 to 0x8000 where one bit each is set to 1 are written to the address 0 of RAM (IC304) connected to the ARP (IC303) through the bus, then they are read and checked. In case of discord, written bit pattern and read data are displayed. If data where multiple bits are 1 are read, the bits concerned may touch each other. Further, if data where certain bit is always 1 or 0 regardless of written data, the line could be disconnected or shorted.

(5-4) ARP to RAM Address Bus
Data write → other address read discord check
Error 10: ARP → RAM address bus error
Caution: Address and data display in case of an error is different from the display of other diagnosis (described later).
Before starting the test, all addresses of RAM (IC304) are cleared to 0x0000.
First, 0xA55A is written to the address 0x00000, and the address data are read and checked from addresses 0x00001 to 0x80000 while shifting 1 bit each. Next, the data at that address is cleared, and it is written to the address 0x00001, and read and checked in the same manner. This check is repeated up to the address 0x80000 while shifting the address data by 1 bit each.
If data other than 0 is read at the addresses except written address, an error is given because all addresses were already cleared to 0. In this check, the error display pattern is different from that of other diagnosis; read data, written address, and read address are displayed in this order. However, the message uses same template, and accordingly exchange Address and Data when reading. The following display, for example,

```
    ### Syscon Diagnosis ###




 5-4. ARP to RAM Address Bus
Error 10: ARP - RAM Address B
Address    : 0000A55A
Write Data : 00000000
Read Data  : 00080000
Press NEXT Key to Continue
Press PREV Key to Repeat
_
```

shows the data 0xA55A was read from address 0x00080000 though it was written to the address 0x00000000. This implies that these addresses are in the form of shadow. Also, if the read data is not 0xA55A, another error will be present.

(5-5) ARP RAM Check
Data write → read, and accord check
Error 11: ARP RAM read data discord
The program code data stored in ROM are copied to all areas of RAM (IC304) connected to the ARP (IC303) through the bus, then they are read and checked if they accord. If the detail check was selected initially, the data are written to all areas and read, then the same test is conducted once again with the data where all bits are inverted between 1 and 0. If discord is detected, faulty address, written data, and read data are displayed following the error code 11, and the test is suspended.

6. AV Decoder

(6-2) 1930 RAM
Data write → read, and accord check
Error 13: AVD RAM read data discord
The program code data stored in ROM (IC206) are copied to all areas of RAM (IC402, IC403) connected to the AVD (IC401) through the bus, then they are read and checked if they accord. Further, the same test is conducted once again with the data where all bits are inverted between 1 and 0. If discord is detected, faulty address, written data, and read data are displayed following the error code 13, and the test is suspended.

(6-3) 1930 SP
ROM → AVD RAM → Video OUT
Error: Not detected.
The data including sub picture streams in ROM (IC206) are transferred to the RAM (IC402, IC403) in AVD (IC401), and output as video signals from the AVD (IC401).
They are output from all video terminals (Composite, Y/C).

7. Video

(7-2) Color Bar
AVD color bar command write → Video OUT
Error: Not detected.
The command is transferred to the AVD, and the color bar signals are output from video terminals.
They are output from all video terminals (Composite, Y/C).

8. Audio

(8-2) ARP → 1930
Error 14: ARP → 1930 video NG
15 : ARP → 1930 audio NG

Check Items List

2) Version
(2-2) Revision
(2-3) ROM Check Sum
(2-4) Model Type
(2-5) Region

3) Peripheral
(3-2) Gate Array Check
(3-3) EEPROM Check

4) Servo
(4-2) Servo DSP Check
(4-3) DSP Driver Test

5) Supply
(5-2) ARP Register Check
(5-3) ARP to RAM Data Bus
(5-4) ARP to RAM Address Bus
(5-5) ARP RAM Check

6) AV Decoder
(6-2) 1930 RAM
(6-3) 1930 SP

7) Video
(7-2) Color Bar

8) Audio
(8-2) ARP → 1930
(8-3) Test Tone

Error Codes List

00: Error not detected
01: RAM write/read data discord
02: Gate array NG
03: EEPROM NG
08: ARP register read data discord
09: ARP ←→ RAM data bus error
10: ARP ←→ RAM address bus error
11: ARP RAM read data discord
12: Servo DSP NG
13: 1930 SDRAM NG
14: ARP → 1930 video NG
15: ARP → 1930 audio NG
16: 1910 UCODE download NG
17: System call error (function not supported)
18: System call error (parameter error)
19: System call error (illegal ID number)
20: System call error (time out)
90: Error occurred
91: User verification NG
92: Diagnosis cancelled

4-4. DRIVE AUTO ADJUSTMENT

On the Test Mode Menu screen, press [1] key on the remote commander, and the Adjustment Menu will be displayed.

```
   ## Drive Auto Adjustment ##

         Adjustment Menu

0. ALL
1. DVD-SL
2. CD
3. DVD-DL
4. SACD



                   Exit: RETURN
```

Normally, [10/0] is selected to adjust DVD (single layer), CD, DVD (dual layer), and SACD in this order. But, individual items can be adjusted for the case where adjustment is suspended due to an error. In this mode, the adjustment can be made easily through the operation following the message displayed on the screen.
The disc used for adjustment must be the one specified for adjustment. However, for SACD disc, use the player with initial data if the disc is not available.

0. ALL

Select [10/0] and press [ENTER] key, and the servo set data in EEPROM will be initialized. Then, 1. DVD-SL disc, 2. CD disc, 3. DVD-DL disc, and 4. SACD disc are adjusted in this order. Each time one disc was adjusted, it is ejected. Replace it with the specified disc following the message. Though the message to confirm whether discs other than SACD disc are adjusted is not displayed, you can finish the adjustment if pressing the [■] button. During adjustment of each disc, the measurement for disc type judgment is made. As automatic adjustment does not judge the disc type unlike conventional models, take care not to insert wrong type discs. Also, do not give a shock during adjustment.

1. DVD-SL (single layer)

Select [1], insert DVD single layer disc, and press [ENTER] key, and the adjustment will be made through the following steps, then adjusted values will be written to the EEPROM.

DVD Single Layer Disc Adjustment Steps

1. SLED TILT Reset
2. Disc Check Memory SL
3. Wait 300 msec
4. Set Disc Type SL
5. LD ON
6. Spdl Start
7. Wait 1 sec
8. Focus Servo ON 0
9. Auto Track Offset Adjust
10. CLVA ON
11. Wait 500 msec
12. Tracking ON
13. Wait 1 sec
14. Sled ON
15. Check CLV Lock
16. Auto LFO Adjust
17. Auto Focus Offset Adjust
18. Auto Tilt Position Adjust
19. Auto Focus Gain Adjust
20. Auto Focus Offset Adjust
21. EQ Boost Adjust
22. Auto LFO Adjust
23. Auto Track Gain Adjust

Search Check

24. 32Tj Fwd
25. 32Tj Rev
26. 500Tj Fwd
27. 500Tj Rev

28. All Servo Stop
29. Eep Copy Loop Filter Offset

2. CD

Select [2], insert CD disc, and press [ENTER] key, and the adjustment will be made through the following steps, then adjusted values will be written to the EEPROM.

CD Adjustment Steps

1. Sled Tilt Rest
2. Disc Check Memory CD
3. Wait 500 msec
4. Set Disc Type CD
5. LD ON
6. Spdl Start
7. Wait 500 msec
8. Focus Servo ON 0
9. Auto Track Offset Adjust

10. CLVA ON
11. Wait 500 msec
12. Tracking ON
13. (TC Display Start)
14. Wait 1 sec
15. Jitter Display Start
16. Sled ON
17. Check CLV ON
18. Auto LFO Adjust
19. Auto Focus Offset Adjust
20. Auto Focus Gain Adjust
21. Auto Focus Offset Adjust
22. Eq Boost Adjust
23. Auto LFO Adjust
24. Auto Track Gain Adjust

Search Check

25. 32Tj Fwd
26. 32Tj Rev
27. 500Tj Fwd
28. 500Tj Rev

29. All Servo Stop

3. DVD-DL (dual layer)

Select [3], insert DVD dual layer disc, and press [ENTER] key, and the adjustment will be made through the following steps, then adjusted values will be written to the EEPROM.

DVD Dual Layer Disc Adjustment Steps

1. Sled Tilt Reset
2. Disc Check Memory DL
3. Wait 500 msec
4. Set Disc Type DL
5. LD ON
6. Spdl Start
7. Wait 1 sec, Layer 1 Adjust
8. Focus Servo ON 0
9. Auto Track Offset Adjust

10. Clva ON
11. Wait 500 msec
12. Tracking ON
13. Wait 500 msec
14. Sled ON
15. Check CLV Lock
16. Auto Loop Filter Offset Auto Focus Adjust
17. Auto Focus Gain Adjust
18. Auto Focus Offset Adjust
19. Eq Boost Adjust
20. Auto Loop Filter Offset
21. Auto Track Gain Adjust

Search Check

22. 32Tj Fwd
23. 32Tj Rev
24. 500Tj Fwd
25. 500Tj Rev

Layer 0 Adjust

26. Fj (L1 -> L0)
27. Auto Track Offset Adjust L0

28. Clva ON
29. Wait 500 msec
30. Tracking ON
31. Wait 500 msec
32. Sled ON
33. Check CLV Lock
34. Auto Focus Filter Offset
35. Auto Focus Adjust
36. Auto Focus Gain Adjust
37. Auto Focus Offset Adjust
38. Eq Boost Adjust
39. Auto Loop Filter Offset
40. Auto Track Gain Adjust

Search Check

41. 32Tj Fwd
42. 32Tj Rev
43. 500Tj fwd
44. 500Tj Rev

Layer Jump Check

45. Lj (L0 -> L1)
46. Lj (L1 -> L0)

47. All Servo Stop

4. SACD

Select [4], insert SACD disc, and press [ENTER] key, and the adjustment will be made through the following steps, then adjusted values will be written to the EEPROM. However, if SACD disc is not available, use the player with initial data, skipping the SACD adjustment. In this case, you can finish the adjustment if pressing the [■] button.

SACD Adjustment Steps

1. Sled Tilt Reset
2. Set Disc Type CD
3. LD ON
4. Spdl Start
5. Wait 500 msec
6. Focus Servo ON 0
7. Auto track Offset Adjust
8. CLVA ON
9. Wait 500 msec
10. Tracking ON
11. Wait 1 sec
12. Sled ON
13. Check CLV ON
14. Auto Focus Offset Adjust
15. Auto Focus Gain Adjust
16. Auto Focus Offset Adjust
17. Eq Boost Adjust
18. Auto LFO Adjust
19. Auto Track Gain Adjust

20. 32Tj Fwd
21. 32Tj Rev
22. 500Tj Fwd
23. 500Tj Rev

24. All Servo Stop

4-5. DRIVE MANUAL OPERATION

On the Test Mode Menu screen, select [2], and the Operation Menu will be displayed. For the manual operation, each servo on/off control and adjustment can be executed manually.

```
  ## Drive Manual Operation ##

         Operation Menu
1. Disc type
2. Servo Control
3. Track/Layer Jump
4. Manual Adjustment
5. Auto Adjustment
6. Memory Check

0. Disc Check Memory

                  Exit: Return
```

In using the manual operation menu, take care of the following points. These commands do not provide protection, thus requiring correct operation. The sector address or time code field is displayed when a disc is loaded.

1. Set correctly the disc type to be used on the Disc Type screen.
   The disc type must be set after a disc was loaded.
   The set disc type is cleared when the tray is opened.
2. After power ON, if the Drive Manual Operation was selected, first perform “Reset SLED TILT” by opening 1. Disc Type screen.
3. In case of an alarm, immediately press the [■] button to stop the servo operation, and press the [I/⏻] button to turn the power OFF.

Basic operation (controllable from front panel or remote commander)

[I/⏻]	Power OFF (release the Test Mode)
[■]	Servo stop
[⏏ 1]	Stop+Eject/Loading
[RETURN]	Return to Operation Menu or Test Mode Menu
[NEXT], [PREV]	Transition between sub modes of menu
[1] to [9], [10/0]	Selection of menu items
Cursor UP/DOWN	Increase/Decrease in manually adjusted value

0. Disc Check Memory

```
           Disc Check



1. SL Disc Check
2. CD Disc Check
3. DL Disc Check



0. Reset SLED TILT
```

On this screen, the mirror time is measured to judge the disc and it is written to the EEPROM. First load DVD SL disc and press [1], next load CD disc and press [2], and finally load DVD DL disc and press [3].
The adjustment must be executed more than once after default data were written. External vibration or shock to the player must not be given. Reference value for DVD is from 10 to 20, and for CD, from 28 to 4F.
Check that the value of CD is larger than that of DVD.
When those values are beyond a range perform this adjustment again.
From this screen, you can go to another mode by pressing [NEXT] or [PREV] key, but you cannot enter this mode from another mode. You can enter this mode from the Operation Menu screen only.

1. Disc Type

```
           Disc Type
1. Disc Type Auto Check
2. DVD SL   12 cm
3. DVD DL   12 cm
4. CD       12cm
5. SACD     12 cm
6. dvd SL   8 cm
7. DVD DL   8 cm
8. CD       8 cm
9. SACD     8 cm
0. Reset SLED TILT
                        EMG. 00
```

On this screen, select the disc type. To select the disc type, press the number of the loaded disc. The selected disc type is displayed at the bottom. Selecting [1] automatically selects and displays the disc type. In case of wrong display, retry “Disc Check Memory”. Also, opening the tray causes the set disc type to be cleared. In this case, set the disc type again after loading.
In performing manual operation, the disc type must be set.
Once the disc type has been selected, the sector address or time code display field will appear as shown below. These values are displayed when PLL is locked.

```
           Disc Type
1. Disc Type Auto Check
2. DVD SL   12 cm
3. DVD DL   12 cm
4. CD       12cm
5. SACD     12 cm
6. dvd SL   8 cm
7. DVD DL   8 cm
8. CD       8 cm
9. SACD     8 cm
0. Reset SLED TILT
        SA._____ SI.___ EMG. 00
DVD SL 12 cm
```

Display when DVD SL 12cm disc was selected

```
           Disc Type
1. Disc Type Auto Check
2. DVD SL   12 cm
3. DVD DL   12 cm
4. CD       12cm
5. SACD     12 cm
6. dvd SL   8 cm
7. DVD DL   8 cm
8. CD       8 cm
9. SACD     8 cm
0. Reset SLED TILT
         TC.___:___:___ EMG. 00
CD   12 cm
```

Display when CD 12cm disc was selected

[10/0] Reset SLED TILT — Reset the Sled and Tilt to initial position.

[1] Disk Type Check — Judge automatically the loaded disc. As the judged result is displayed at the bottom of screen, make sure that it is correct.
If Disc Check Memory Menu has not been executed after EEPROM default setting, the disc type cannot be judged. In this case, return to the initial menu and make a check for three types of discs (SL, DL, CD).

[2] to [9] — Select the loaded disc. The adjusted value is written to the address of selected disc. No further entry is necessary if [1] was selected.

2. Servo Control

```
          Servo Control
1. LD         Off R.Sled FWD
2. SP         Off L.Sled REV
3. Focus      Off
4. TRK.       Off
5. Sled       Off
6. CLVA       Off
7. FCS. Srch Off


0. Reset SLED TILT
        SA._____ SI.___ EMG. 00
DVD SL 12 cm
```

On this screen, the servo on/off control necessary for replay is executed. Normally, turn on each servo from 1 sequentially and when CLVA is turned on, the usual trace mode becomes active. In the trace mode, DVD sector address or CD time code is displayed. This is not displayed where the spindle is not locked.
The spindle could run overriding the control if the spindle system is faulty or RF is not present. In such a case, do not operate CLVA.

10/0 Reset SLED TILT	Reset the Sled and Tilt to initial position.
1 LD	Turn ON/OFF the laser.
2 SP	Turn ON/OFF the spindle.
3 Focus	Search the focus and turn on the focus.
4 TRK	Turn ON/OFF the tracking servo.
5 Sled	Turn ON/OFF the sled servo.
6 CLVA	Turn ON/OFF normal servo of spindle servo.
7 FCS. Srch	Apply same voltage as that of focus search to the focus drive to check the focus drive system.
→ Sled FWD	Move the sled outward. Perform this operation with the tracking servo turned off.
← Sled REV	Move the sled inward. Perform this operation with the tracking servo turned off.
↑ Tilt UP	Move the tilt upward.
↓ Tilt DOWN	Move the tilt downward.

The following menus are normally not used.

3. Track/Layer Jump

4. Manual Adjustment

5. Auto Adjustment

The persons who do not know well about these menus should not use them.

6. Memory Check

```
EEPROM DATA
                CD       - DVD -
ID No. 00      SACD     SL  L0  L1
Focus Gain     xx xx    xx  xx  xx
TRK. Gain      xx xx    xx  xx  xx
Focus Offset   xx xx    xx  xx  xx
TRK. Offset    xx xx    xx  xx  xx
L. F. Offset   xx xx    xx  xx  xx
EQ Boost       xx xx    xx  xx  xx
Jitter         xx xx    xx  xx  xx
Mirror Time    xx xx    xx  xx  xx
_
CLEAR: Default Set
```

This screen displays current servo adjusted data stored in the EEPROM. Though adjusted data can be initialized with the CLEAR key, they cannot be restored after initialization.
So, before clearing, make a note of the adjusted data.
For reference, the drive has been designed so that the gain center value is 20 and offset value is 80. Other values will be in a range of 10 to 80. If extreme value such as 00 or FF is set, adjustment will be faulty. In such a case, check for disc scratch or cable disconnection, then perform adjustment again.

4-6. MECHA AGING

```
    ### Aging Test MENU ###

         Operation Menu

1. Changer Open/Close Test

2. Changer Exchange Test




                    Exit: RETURN
```

On the Test Mode Menu Screen, selecting 3 executes the aging of the mechanism. Changer Open/Close Test or Changer Exchange Test are selected by pressing the 1 or 2. During aging, the repeat cycle is displayed. Aging can be aborted at any time by pressing the ■ key. After the operation is stopped, press the ■ key or RETURN key aging to return to the Test Mode Menu.

1 Repeat open and close the disc tray from disc 1 to disc 5.
2 After press the 2 key, select the disc number by pressing some key of 1 to 5 and open the disc tray of selected number. Press the ► key to start playback the disc.
While playback the disc, repeat open and close the disc tray of other disc.

4-7. EMERGENCY HISTORY

```
      ### EMG. History ###

Laser Hours     CD   xxxxxxxh
                DVD  xxxxxxxh

1. 00 00 00 00  00 00 00 00
   00 00 00 00  00 00 00 00

2. 00 00 00 00  00 00 00 00
   00 00 00 00  00 00 00 00

Select: 1 – 9   Scroll: UP/DOWN
(1: Last EMG.)  Exit: Return
```

On the Test Mode Menu screen, selecting 4 displays the information such as servo emergency history. The history information from last 1 up to 10 can be scrolled with ↑ key or ↓ key. Also, specific information can be displayed by directly entering that number with ten keys.

The upper two lines display the laser ON total hours. Data below minutes are omitted.

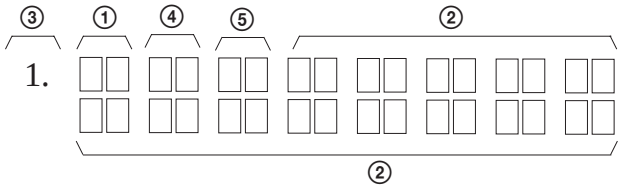
Clearing History Information

◎ Clearing laser hours
Press DVD DISPLAY and CLEAR keys in this order.
Both CD and DVD data are cleared.

◎ Clearing emergency history
Press TITLE and CLEAR keys in this order.

◎ Initializing set up data
Press DVD MENU and CLEAR keys in this order.
The data have been initialized when “Set Up Initialized” message is displayed. The EMG. History screen will be restored soon.

How to see Emergency History



① : Emergency Code
② : Don't Care
These codes are used for verification of software designing.
③ : Historical order 1 to 9
④, ⑤ : Emergency Code for only AV Decoder

Emergency Codes List

10: Communication to IC001 (TK board) failed.
11: Each servo for focus, tracking, and spindle is unlocked.
12: Communication to EEPROM IC201 (MB board) failed.
13: Writing of hours meter data to EEPROM IC201 (MB board) failed.
14: Communication to Servo DSP IC701 (MB board) failed, or Servo DSP is faulty.
20: Initialization of tilt servo and sled servo failed. They are not placed in the initial position.
21: Tilt servo operation error
22: Syscon made a request to move the tilt servo to wrong position.
23: Sled servo operation error
24: Syscon made a request to move the sled servo to wrong position.
30: Tracking balance adjustment error
31: Tracking gain adjustment error
32: Focus balance adjustment error
33: Focus bias adjustment error
34: Focus gain adjustment error
35: Tilt servo adjustment error
36: RF equalizer adjustment error
37: RF group delay adjustment error
38: Jitter value after adaptive servo operation is too large.
40: Focus servo does not operate.
41: With a dual layer (DL) disc, focus jump failed.50: CLV (spindle) servo does not operate.
51: Spindle does not stop.
60: With a DVD disc, Syscon made a request to seek nonexistent address.
61: With a CD disc, Syscon made a request to seek nonexistent address.
62: With a CD disc, Syscon made a request to seek nonexistent track No. and index No.
63: With a DVD disc, seeking of target address failed.
64: With a CD disc, seeking of target address failed.
65: With a CD disc, seeking of target index failed.
70: With a DVD disc, physical information data could not be read.
71: With a CD disc, TOC data could not be read.
80: Disc type judgment failed.
81: As disc type judgment failed, retry was repeated.
82: As disc type judgment failed, a measurement error occurred.
83: Disc type could not be judged within the specified time.
84: Illegal command code was received from Syscon.
85: Illegal command was received from Syscon.
E0: Mechanical error CDM53

Emergency Code List for AV Decoder

① D8: The "ACK" for command from AV Decoder IC401 (MB board) is no return.
D9: The "ACK" for command from Audio DSP IC501 (MB board) is no return.
DA: The "ACK" for command from AV Decoder IC401 (MB board) and Audio DSP IC501 (MB board) are no return.
DC: AV Decoder IC401 (MB board) can not operate inside.
DD: It is time out to operate by inside of AV Decoder IC401 (MB board).
② 01: The cause is Audio DSP IC501 (MB board).
30: The cause is AV Decoder IC401 (MB board).
31: The cause is both AV Decoder IC401 (MB board) and Audio DSP IC501 (MB board).
③ 00: Occurrence of DVD disc.
01: Occurrence of VCD disc.
02: Occurrence of CDDA disc.

4-8. VERSION INFORMATION

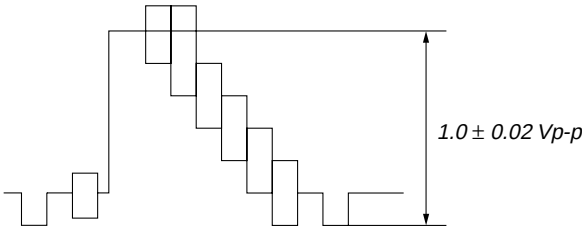
```
   ## Version Information ##

IF con.    Ver. x. xxx (xxxx)
           Group    00

SYScon.    Ver. x. xxx (xxxx)
           Model    xx
           Region   0x
    Servo DSP   Ver. x. xxx


Exit: RETURN
```

On the Test Mode Menu screen, selecting [5] displays the ROM version and region code.
The parenthesized hexadecimal number in version field is checksum value of ROM.

4-9. VIDEO LEVEL ADJUSTMENT

On the Test Mode Menu screen, selecting [6] displays color bars for video level adjustment. During display of color bars, OSD disappears but the menu screen will be restored if pressing any key.

Measurement point : VIDEO OUT jack
(75 Ω terminating resistance)
Measuring instrument : Oscilloscope
Adjustment device : RV401 on MB board
Specified value : 1.0 ± 0.02 Vpp



5. ELECTRICAL ADJUSTMENTS

DECK SECTION **0 dB=0.775V**

1. Demagnetize the record/playback head with a head demagnetizer.
2. Do not use a magnetized screwdriver for the adjustments.
3. After the adjustments, apply suitable locking compound to the parts adjusted.
4. The adjustments should be performed with the rated power supply voltage unless otherwise noted.
5. The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
6. The adjustments should be performed for both L-CH and R-CH.
7. Switches and controls should be set as follows unless otherwise specified.

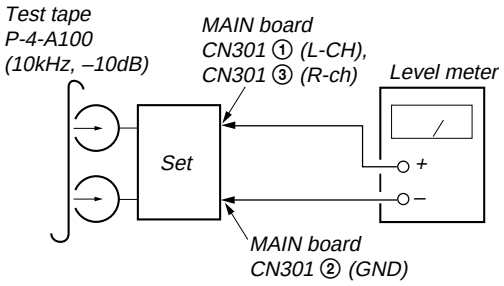
Tape	Signal	Used for
P-4-A100	10 kHz, –10 dB	Azimuth Adjustment
WS-48B	3 kHz, 0 dB	Tape Speed Adjustment
P-4-L300	315 Hz, 0 dB	Level Adjustment

Record/Playback Head Azimuth Adjustment (Deck A, Deck B)

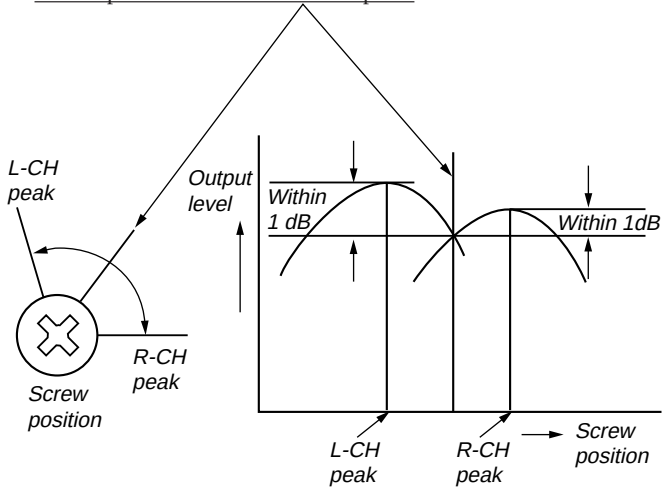
Note: Perform this adjustments for both decks.

Procedure:

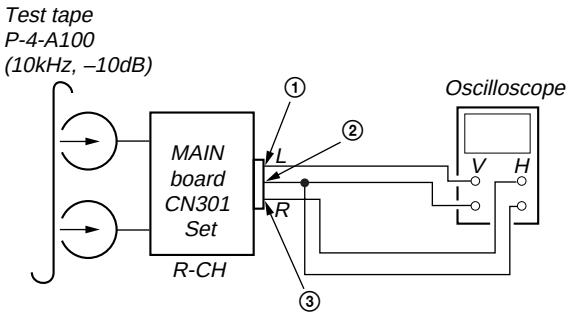
1. Mode : Playback

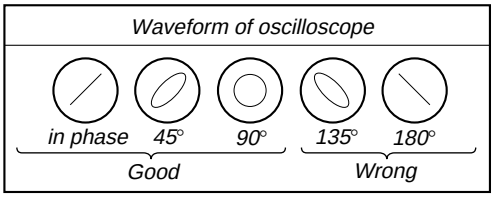


2. Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1 dB of peak.



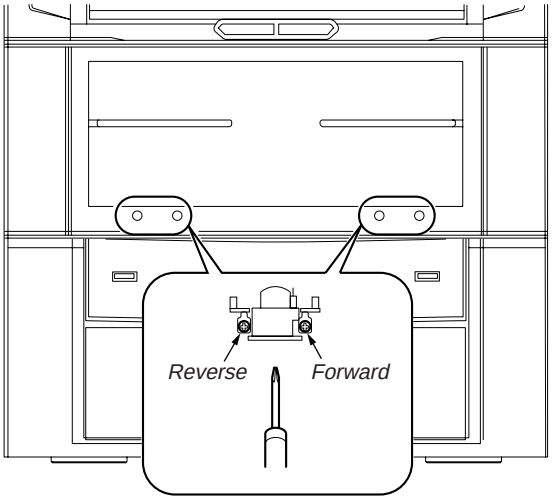
3. Mode: Playback





4. After the adjustments, apply suitable locking compound to the parts adjusted.

Adjustment Location: Playback Head (Deck A)
Record/Playback/Erase Head (Deck B)



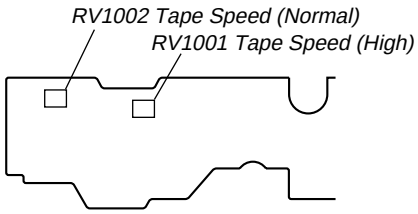
Tape Speed Adjustment (Deck B)

Note: Set the test mode using the following method and begin tape speed adjustment.
In the test mode, the speed will switch to double speed or normal speed each time the HI-DUB button is pressed.

Procedure:
With the power turned ON, press the ■ button, DISPLAY button, and DISC 3 button simultaneously.
(The "TEST MODE" on the fluorescent indicator tube will be displayed while in the test mode.)
To exit the test mode, press the I/⏻ button.

1. Insert the WS-48B into deck B.
2. Press the ► button of deck B.
3. Press the HI-DUB button and play the tape at double speed.
4. Adjust RV1001 of the LEAF SW board so that the reading of the frequency counter becomes 6000 ± 180 Hz.
5. Press the HI-DUB button and play the tape at normal speed.
6. Adjust RV1002 of the LEAF SW board so that the reading of the frequency counter becomes 3000 ± 90 Hz.

Adjustment Location:
– LEAF SW BOARD (Component Side) –

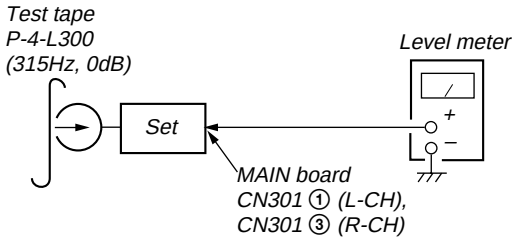


Sample Value of Wow and flutter

W.RMS (JIS) less than 0.3%
(test tape: WS-48B)

Playback Level Adjustment (Deck A, Deck B)

Procedure:
Mode: Playback



Deck A is RV311 (L-CH) and RV411 (R-CH), deck B is RV301 (L-CH) and RV401 (R-CH) so that adjustment within the following adjustment level.

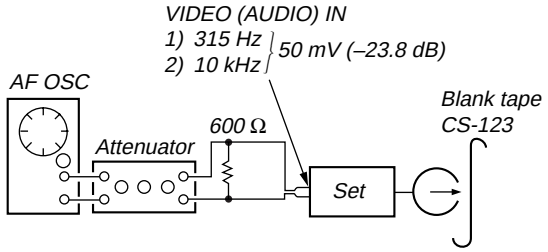
Adjustment level:
CN301 playback level: 301.5 to 338.3 mV (–8.2 to –7.2 dB)
level difference between the channels: within ± 0.5 dB
Adjustment Location: AUDIO board

Record Bias Adjustment (Deck B)

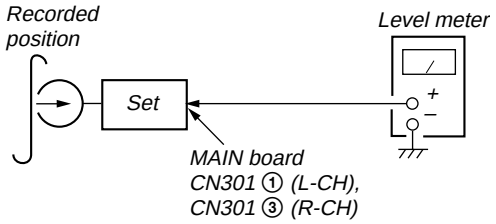
Procedure:

INTRODUCTION
When set to the test mode performed in **Tape Speed Adjustment**, when the tape is rewound after recording, the "REC memory mode" which rewinds only the recorded portion and playback is set.
This "REC memory mode" is convenient for performing this adjustment. During recording, the input signal FUNCTION will automatically switch to VIDEO.
(After recording, press the ◄◄ button without stopping will return to the position where recording was started)

1. Press FUNCTION button to select VIDEO. (This step is not necessary if the above test mode has already been set)
2. Insert a tape into deck B, press the REC PAUSE/START button, and then press the ► button of deck B to start recording.
3. Mode: Record



4. Mode: Playback



5. Confirm playback the signal recorded in step 2 become adjustment level as follows.
If these levels do not adjustment level, adjust the RV341 (L-CH) and RV441 (R-CH) on the AUDIO board to repeat steps 3 and 4.

Adjustment level: The playback output of 10 kHz level difference against 315 Hz reference should be ± 1.0 dB.

Adjustment Location: AUDIO board

Record Level Adjustment (Deck B)

Procedure:

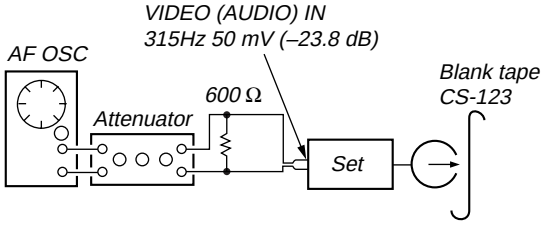
INTRODUCTION

When set to the test mode performed in **Tape Speed Adjustment**, when the tape is rewound after recording, the "REC memory mode" which rewinds only the recorded portion and playback is set.

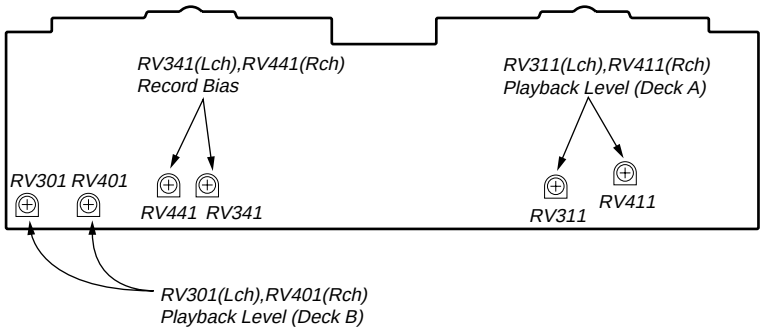
This "REC memory mode" is convenient for performing this adjustment. During recording, the input signal FUNCTION will automatically switch to VIDEO.

(After recording, press the ◀◀ button without stopping will return to the position where recording was started)

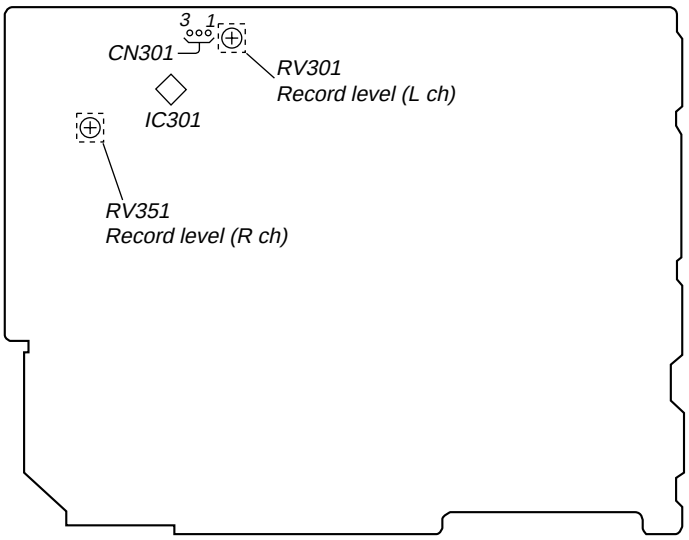
1. Press FUNCTION button to select VIDEO. (This step is not necessary if the above test mode has already been set)
2. Insert a tape into deck B, press the REC PAUSE/START button, and then press the ► button of deck B to start recording.
3. Mode: Record



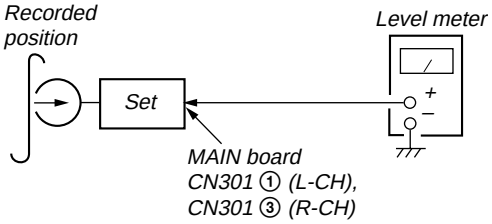
Adjustment Location:
– AUDIO BOARD (Component Side) –



– MAIN BOARD (Conductor Side) –



4. Mode: Playback



5. Confirm playback the signal recorded in step 2 become adjustment level as follows.
   If these levels do not adjustment level, adjust the RV301 (L-CH) and RV351 (R-CH) on the MAIN board to repeat steps 3 and 4.

Adjustment level:
CN301 playback level: 47.2 to 53.0 mV (–24.3 to –23.3 dB)

Adjustment Location: MAIN board

VIDEO SECTION

Note: During diagnostic check, the characters and color bars can be seen only with the NTSC monitor. Therefore, for diagnostic check, use the monitor that supports both NTSC and PAL modes

Instruments required:

1) Color monitor TV
2) Oscilloscope 1 or 2 phenomena, band width over 100 MHz, with delay mode
3) Frequency counter (over 8 digits)
4) Digital voltmeter
5) Remote commander
   RM-SD170 (1-418-911-11)
6) DVD reference disc
   HLX-501 (J-6090-071-A) (dual layer)
   HLX-503 (J-6090-069-A) (single layer)
   HLX-504 (J-6090-088-A) (single layer)
   HLX-505 (J-6090-089-A) (dual layer)
7) SACD reference disc
   HLXA-509 (J-6090-090-A)

Video Level Adjustment

<Purpose>

This adjustment is made to satisfy the NTSC standard, and if not adjusted correctly, the brightness will be too large or small.

Mode	Video level adjustment in test mode
Signal	Color bars
Test point	VIDEO OUT jack (75 Ω terminated)
Instrument	Oscilloscope
Adjusting element	RV401 (MB board)
Specification	1.0 ± 0.02 Vp-p

Procedure:

1. Select the initial menu “6. Video Level Adjustment” in the test mode so that color bars are generated. (Refer to “4-9. VIDEO LEVEL ADJUSTMENT” on page 16)
2. Adjust the RV401 to attain 1.0 ± 0.02 Vp-p.

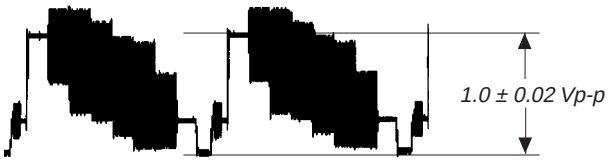


Figure 5-1

S-terminal Output Check

<Purpose>

Check S-terminal video output. If it is incorrect, pictures will not be displayed correctly in spite of connection to the TV with a S-terminal cable.

Mode	Video level adjustment in test mode
Signal	Color bars
Test point	S VIDEO OUT jack (75 Ω terminated)
Instrument	Oscilloscope
Specification	1.0 ± 0.1 Vp-p

Procedure:

1. Select the initial menu “6. Video Level Adjustment” in the test mode so that color bars are generated. (Refer to “4-9. VIDEO LEVEL ADJUSTMENT” on page 16)
2. Confirm that the S-Y level is 1.0 ± 0.1 Vp-p.

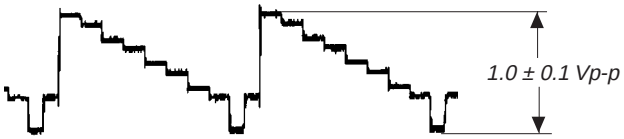


Figure 5-2

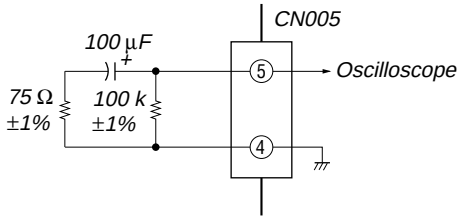
Checking S Video Output S-C

<Purpose>

This checks whether the S-C satisfies the NTSC Standard. If it is not correct, the colors will be too dark or light.

Mode	Video level adjustment in test mode
Signal	Color bars
Test point	CN005 pin ⑤
Instrument	Oscilloscope
Specification	286 ± 50 mVp-p

Connection:



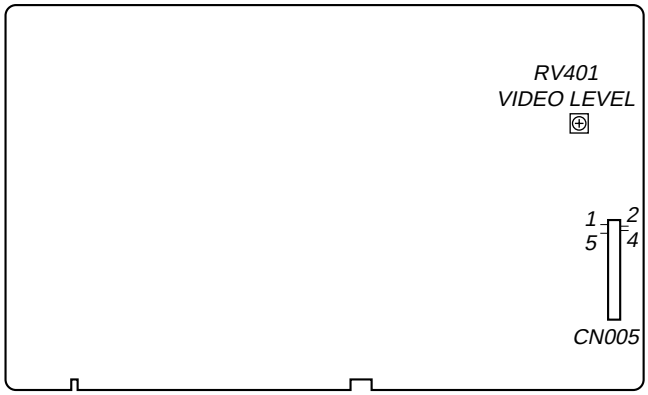
Procedure:

1. Select the initial menu “6. Video Level Adjustment” in the test mode so that color bars are generated. (Refer to “4-9. VIDEO LEVEL ADJUSTMENT” on page 16)
2. Confirm that the S-C burst is 286 ± 50 mVp-p.

Figure 5-3

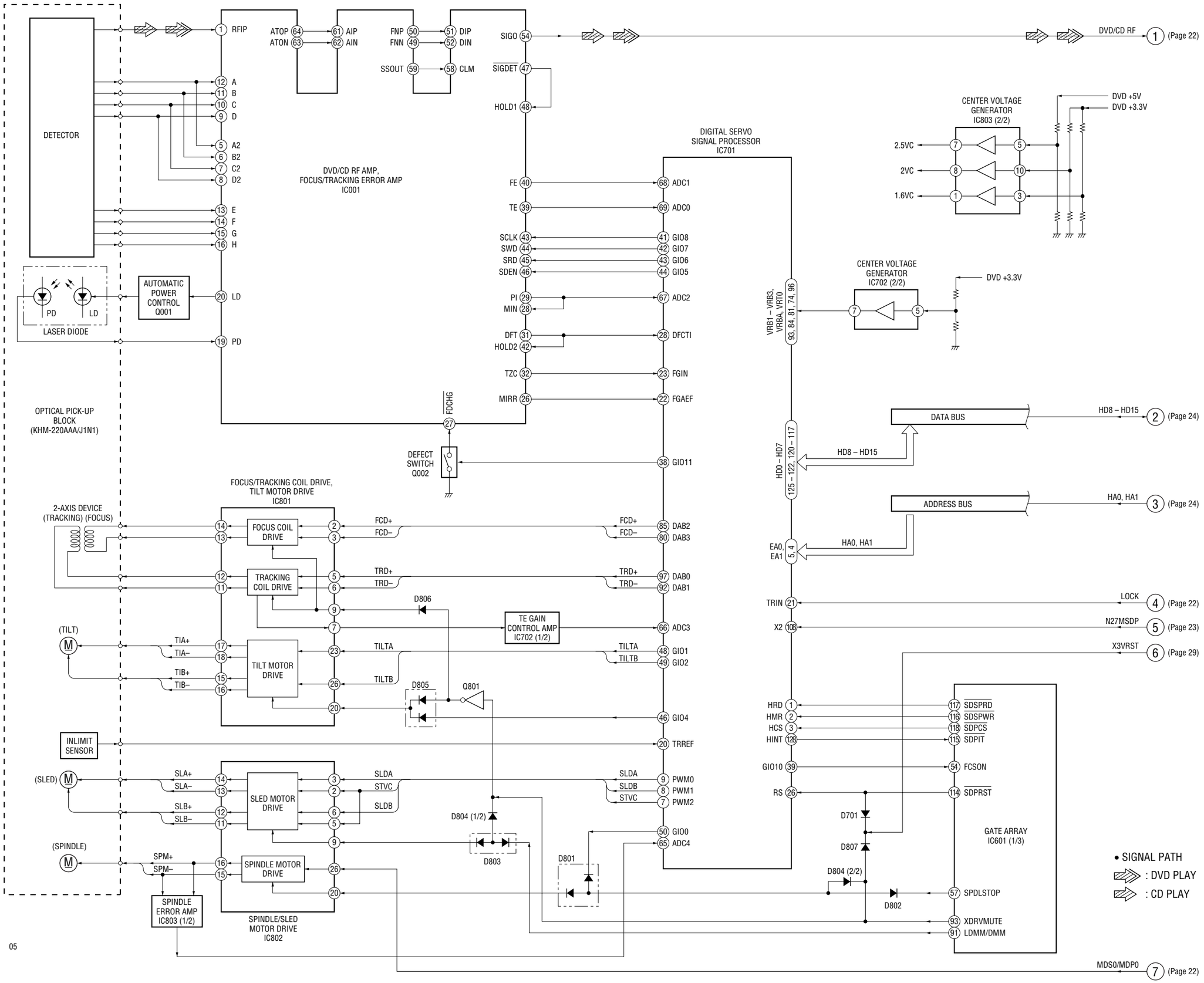
Adjustment Location :

– MB BOARD (Side A) –

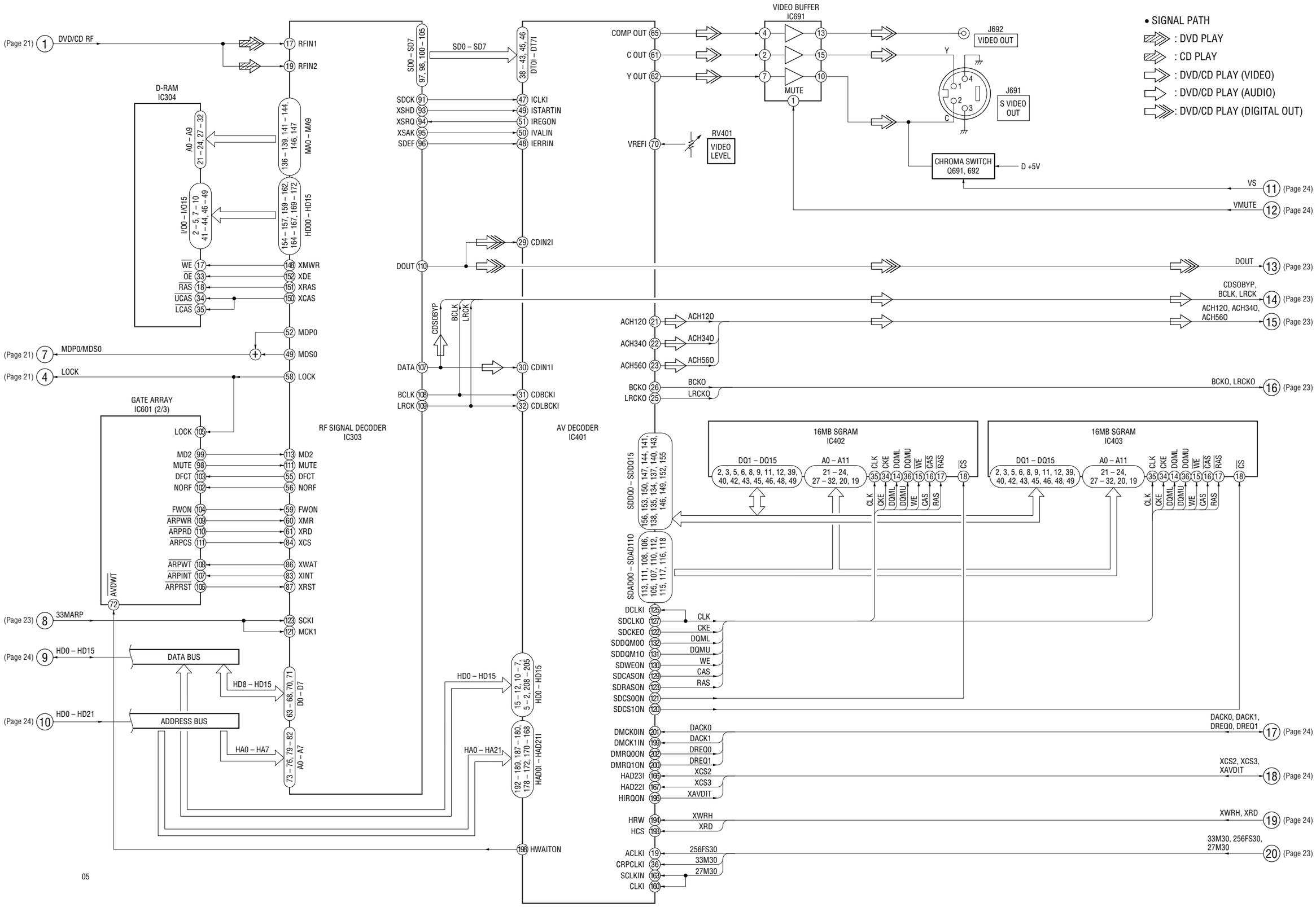


6. BLOCK DIAGRAMS

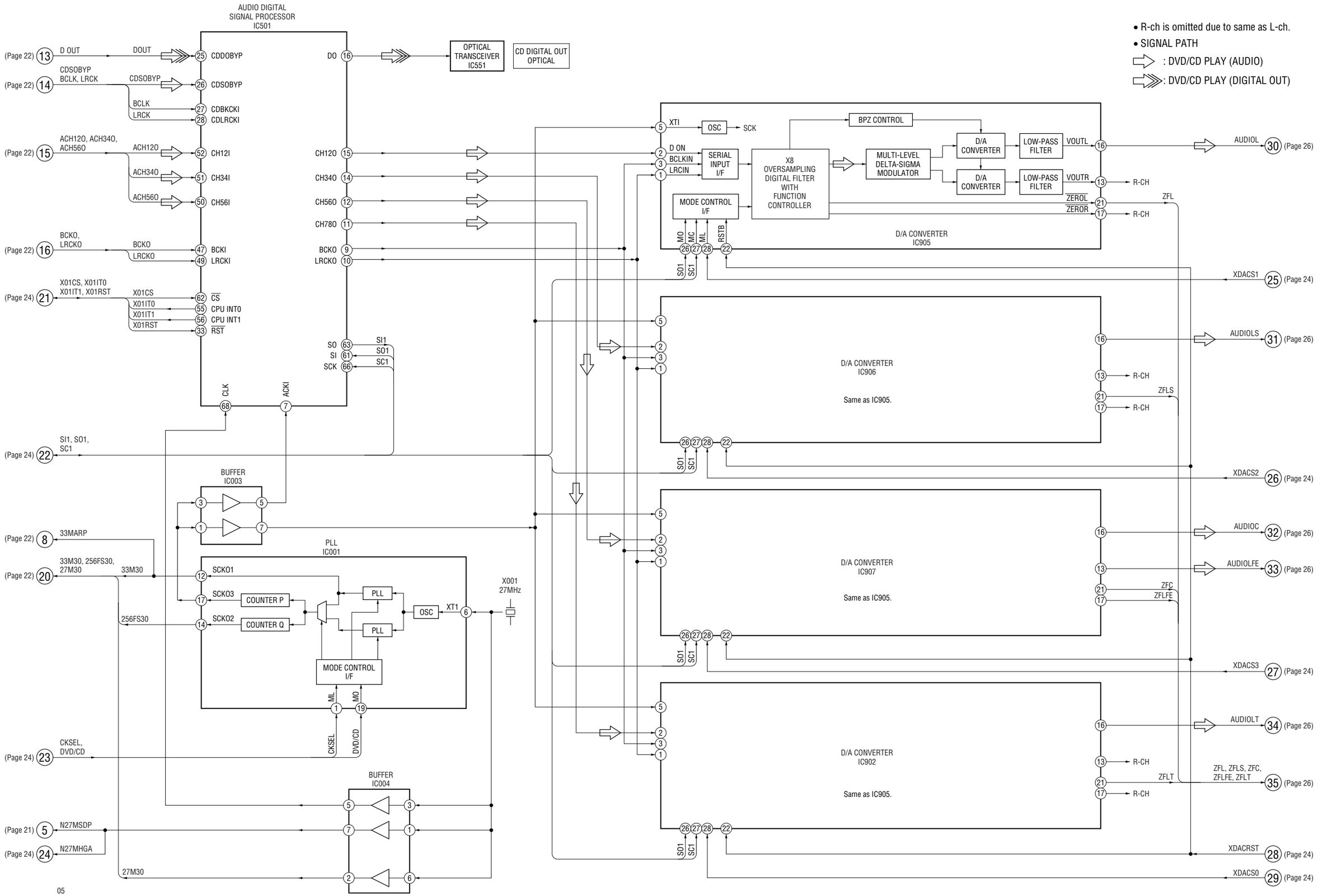
6-1. BLOCK DIAGRAM – SERVO Section –



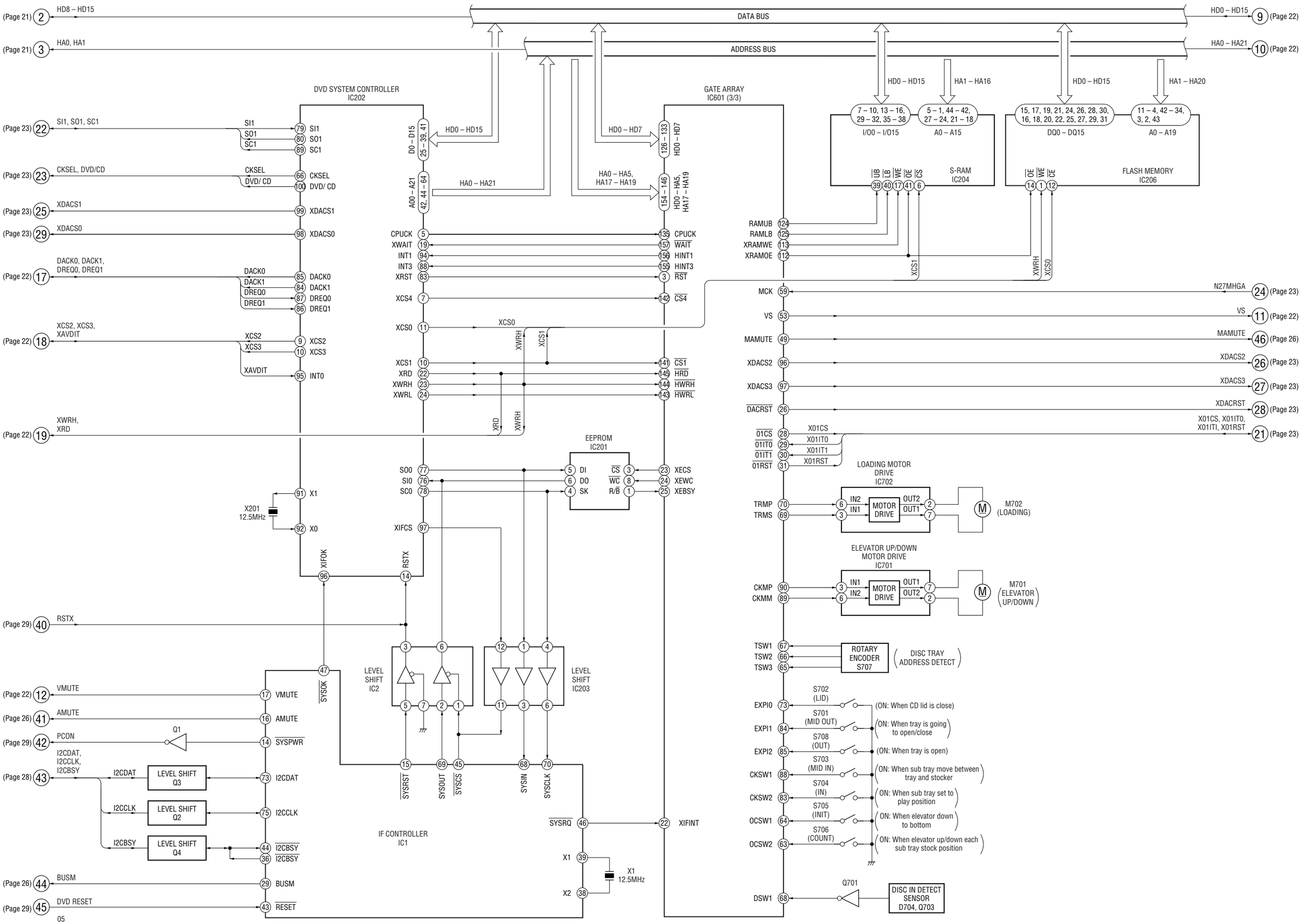
6-2. BLOCK DIAGRAM – SIGNAL PROCESS/VIDEO Section –


• SIGNAL PATH
: DVD PLAY
: CD PLAY
: DVD/CD PLAY (VIDEO)
: DVD/CD PLAY (AUDIO)
: DVD/CD PLAY (DIGITAL OUT)
(Page 21) 1 DVD/CD RF
17 RFIN1
19 RFIN2
D-RAM IC304
A0 – A9 21 – 24, 27 – 32
I/O0 – I/O15 2 – 5, 7 – 10 41 – 44, 46 – 49
136 – 139, 141 – 144, 146, 147 MA0 – MA9
154 – 157, 159 – 162, 164 – 167, 169 – 172 HD00 – HD15
WE 17 148 XMWR
OE 33 152 XDE
RAS 18 151 XRAS
UCAS 34 150 XCAS
LCAS 35
52 MDP0
(Page 21) 7 MDP0/MDS0
49 MDS0
(Page 21) 4 LOCK
58 LOCK
GATE ARRAY IC601 (2/3)
LOCK 105
MD2 99 113 MD2
MUTE 98 111 MUTE
DFCT 103 55 DFCT
NORF 102 56 NORF
FWON 104 59 FWON
ARPWR 109 60 XMR
ARPRD 110 61 XRD
ARPCS 111 84 XCS
ARPWT 108 86 XWAT
ARPINT 107 83 XINT
ARPRST 106 87 XRST
AVDWT 72
(Page 23) 8 33MARP
123 SCKI
121 MCK1
(Page 24) 9 HD0 – HD15
DATA BUS
HD8 – HD15
63 – 68, 70, 71 D0 – D7
(Page 24) 10 HD0 – HD21
ADDRESS BUS
HA0 – HA7
73 – 76, 79 – 82 A0 – A7
RF SIGNAL DECODER IC303
SD0 – SD7 97, 98, 100 – 105
SD0 – SD7 38 – 43, 45, 46 DT0I – DT7I
SDCK 91 47 ICLKI
XSHD 93 49 ISTARTIN
XSRQ 94 51 IREGON
XSAK 95 50 IVALIN
SDEF 96 48 IERRIN
29 CDIN2I
DOUT 110
CDSOBYP
BCLK
LRCK
DATA 107 30 CDIN1I
BCLK 108 31 CDBCKI
LRCK 109 32 CDLBCKI
HD0 – HD15 15 – 12, 10 – 7, 5 – 2, 208 – 205 HD0 – HD15
HA0 – HA21 192 – 189, 187 – 180, 178 – 172, 170 – 168 HAD0I – HAD21I
198 HWAITON
AV DECODER IC401
COMP OUT 65
C OUT 61
Y OUT 62
VREFI 70
RV401 VIDEO LEVEL
VIDEO BUFFER IC691
4 13
2 15
7 10
MUTE 1
J692 VIDEO OUT
Y
J691 S VIDEO OUT
C
CHROMA SWITCH Q691, 692
D +5V
VS 11 (Page 24)
VMUTE 12 (Page 24)
DOUT 13 (Page 23)
CDSOBYP, BCLK, LRCK 14 (Page 23)
ACH12O, ACH34O, ACH56O 15 (Page 23)
ACH12O 21 ACH12O
ACH34O 22 ACH34O
ACH56O 23 ACH56O
BCKO 26 BCKO
LRCKO 25 LRCKO
BCKO, LRCKO 16 (Page 23)
16MB SGRAM IC402
16MB SGRAM IC403
DQ1 – DQ15 2, 3, 5, 6, 8, 9, 11, 12, 39, 40, 42, 43, 45, 46, 48, 49
A0 – A11 21 – 24, 27 – 32, 20, 19
CLK 35
CKE 34
DQML 14
DQMU 36
WE 15
CAS 16
RAS 17
CS 18
SDDQ0 – SDDQ15 156, 153, 150, 147, 144, 141, 138, 135, 134, 137, 140, 143, 146, 149, 152, 155
SDAD00 – SDAD110 113, 111, 108, 106, 105, 107, 110, 112, 115, 117, 116, 118
DCLKI 125
SDCLKO 127 CLK
SDCKEO 122 CKE
SDDQM0O 132 DQML
SDDQM1O 131 DQMU
SDWEON 130 WE
SDCASON 129 CAS
SDRASON 123 RAS
SDCS0ON 121
SDCS1ON 120
DMCK0IN 201 DACK0
DMCK1IN 199 DACK1
DMRQ0ON 202 DREQ0
DMRQ1ON 200 DREQ1
DACK0, DACK1, DREQ0, DREQ1 17 (Page 24)
HAD23I 166 XCS2
HAD22I 167 XCS3
HIRQON 196 XAVDIT
XCS2, XCS3, XAVDIT 18 (Page 24)
HRW 194 XWRH
HCS 193 XRD
XWRH, XRD 19 (Page 24)
ACLKI 19 256FS30
CRPCLKI 36 33M30
SCLKIN 163 27M30
CLKI 160
33M30, 256FS30, 27M30 20 (Page 23)
05

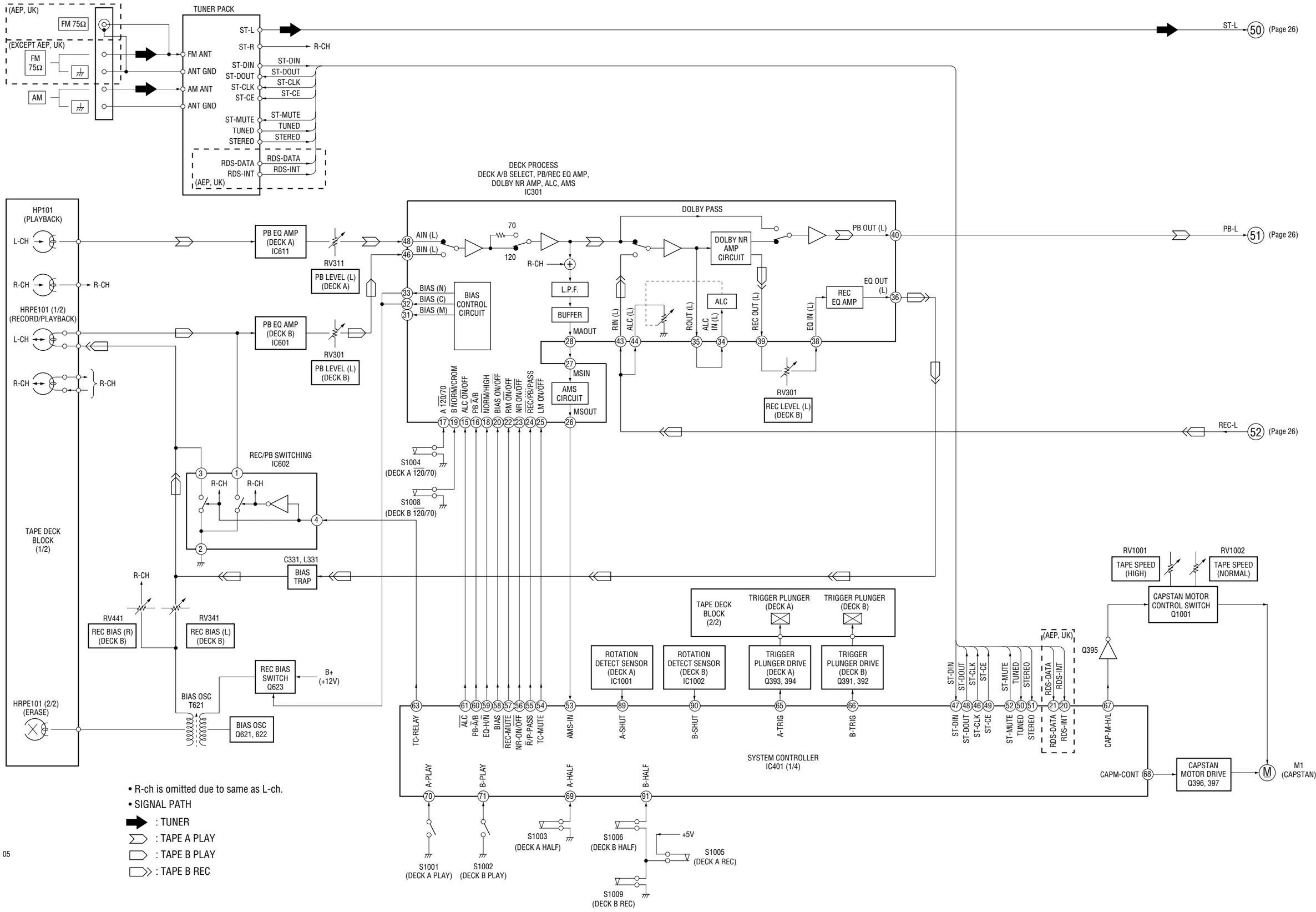
6-3. BLOCK DIAGRAM – DVD/CD AUDIO, DVD/CD PLL Section –



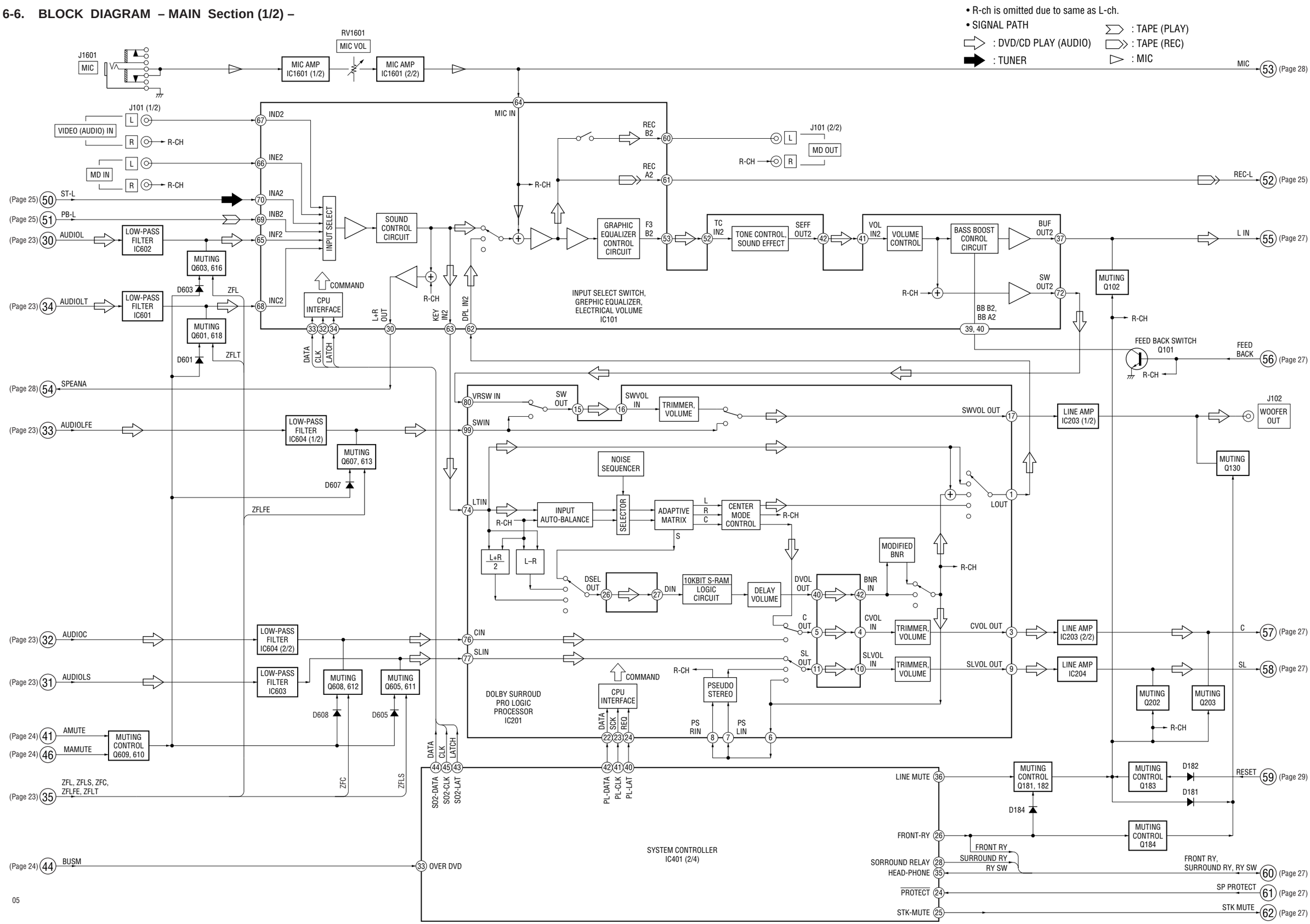
6-4. BLOCK DIAGRAM – DVD/CD MAIN Section –



6-5. BLOCK DIAGRAM – TUNER/TAPE DECK Section –



6-6. BLOCK DIAGRAM – MAIN Section (1/2) –



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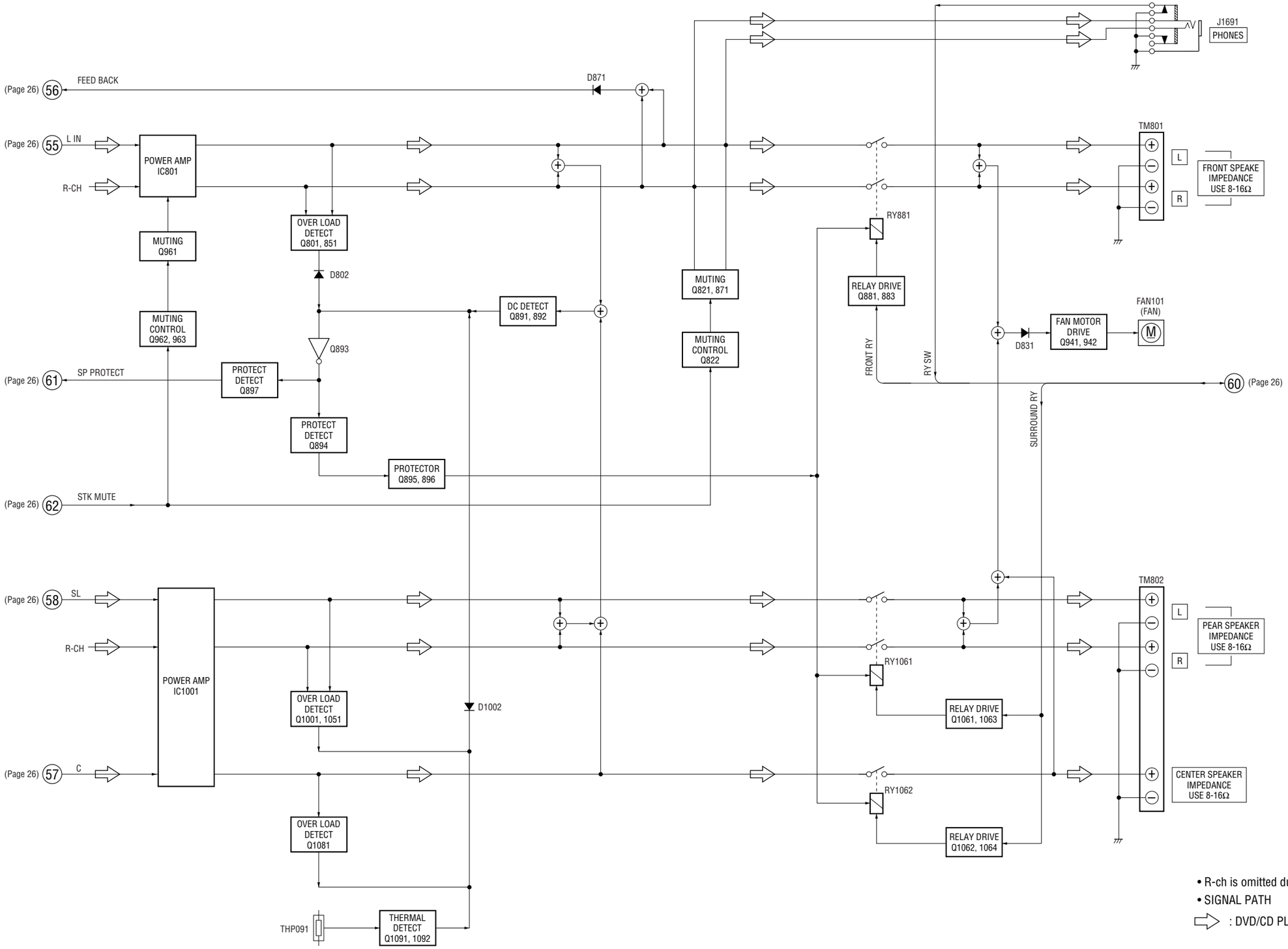
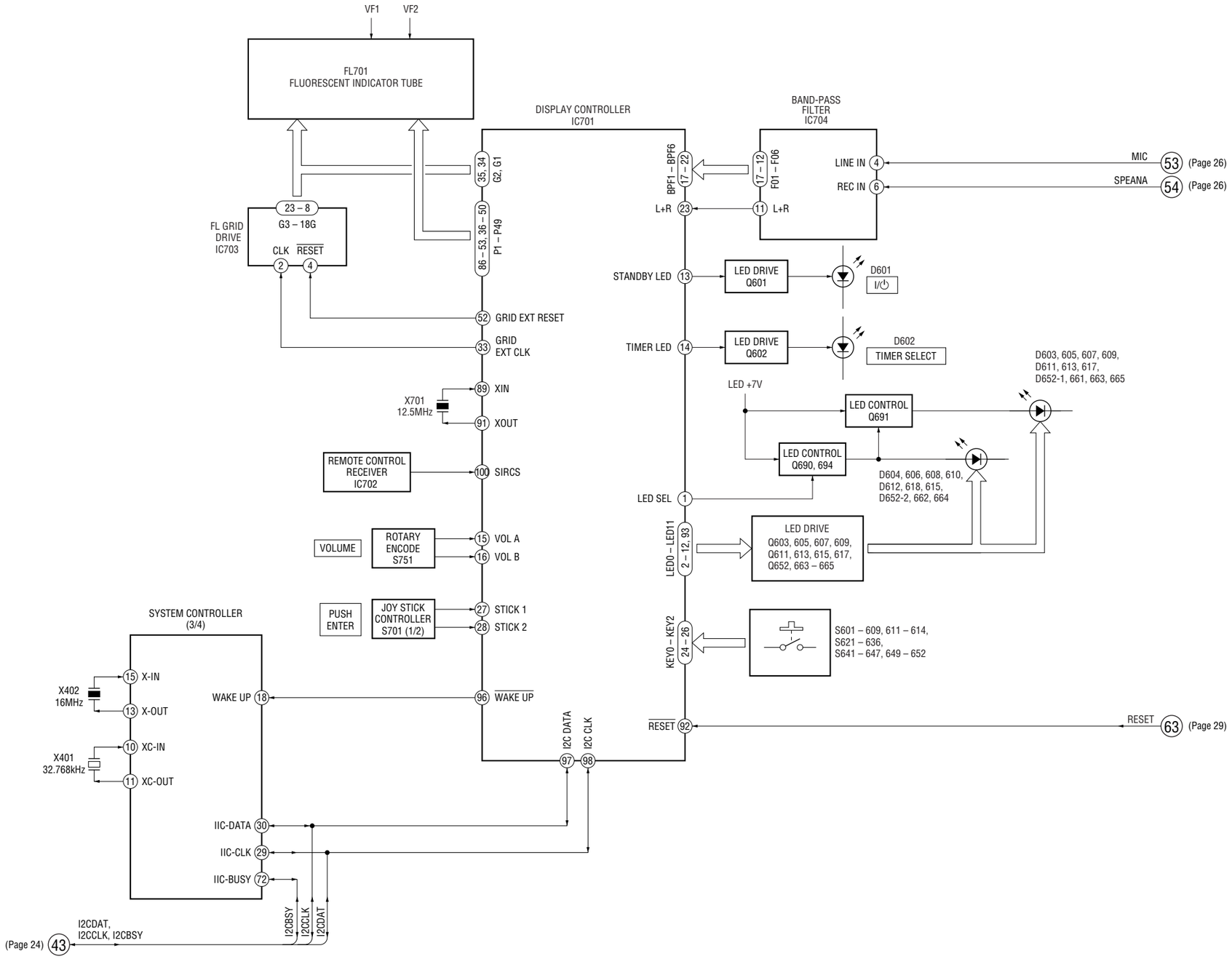
6-7. BLOCK DIAGRAM – MAIN Section (2/2) –



- R-ch is omitted due to same as L-ch.
- SIGNAL PATH
  ⇨ : DVD/CD PLAY (AUDIO)

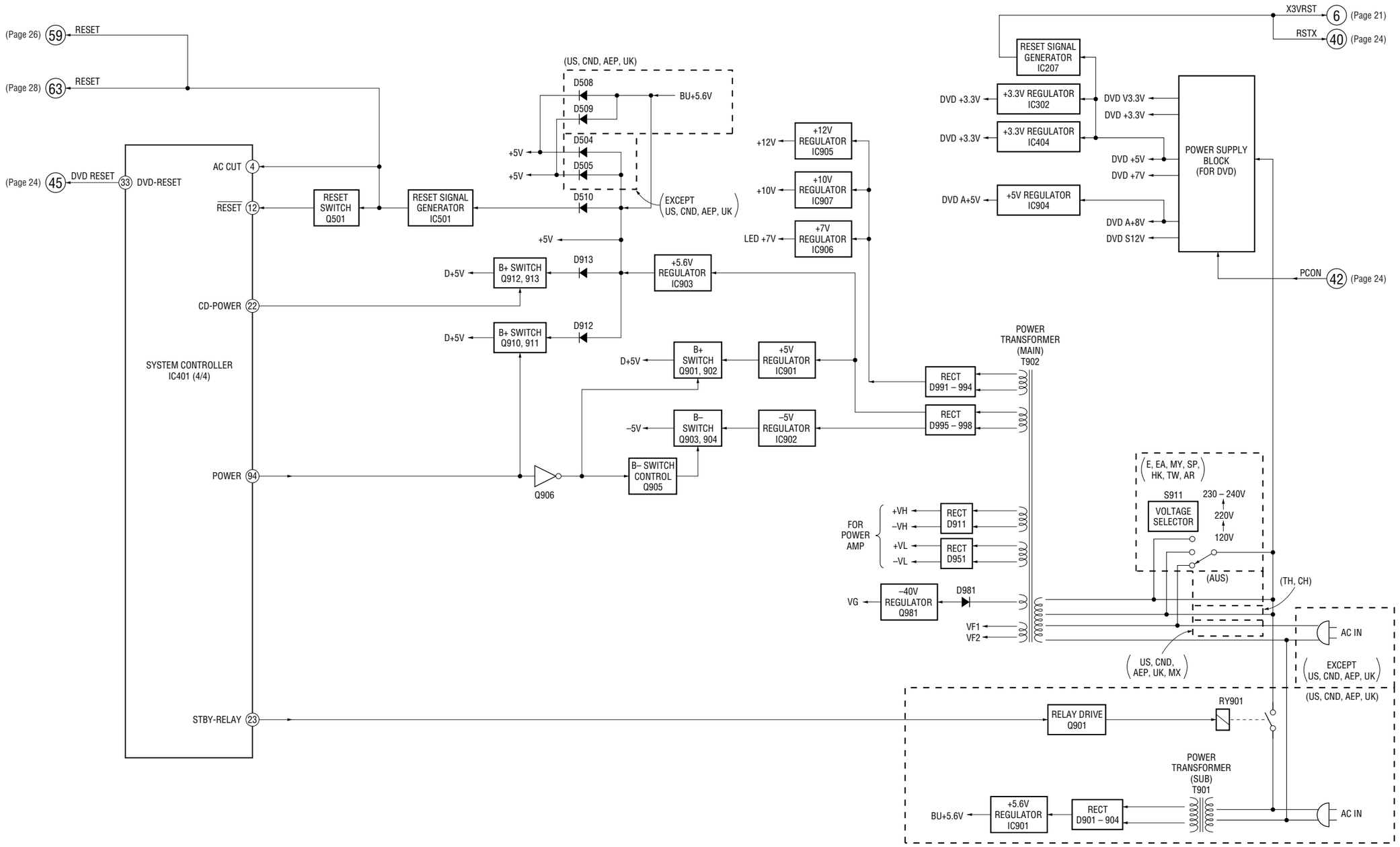
05

6-8. BLOCK DIAGRAM – DISPLAY Section –



05

6-9. BLOCK DIAGRAM – POWER SUPPLY Section –



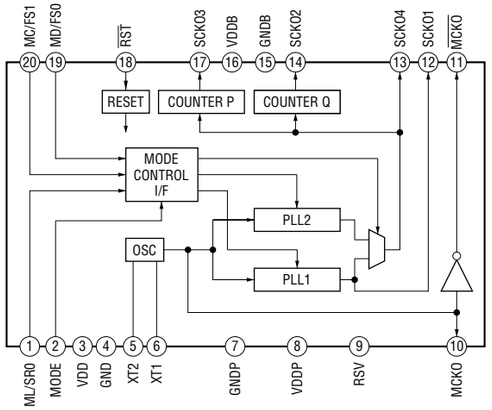
05

• Abbreviation
AR : Argentine model
AUS : Australian model
CH : Chinese model
CND : Canadian model
EA : Saudi Arabia model
HK : Hong Kong model
MX : Mexican model
MY : Malaysia model
SP : Singapore model
TH : Thai model
TW : Taiwan model

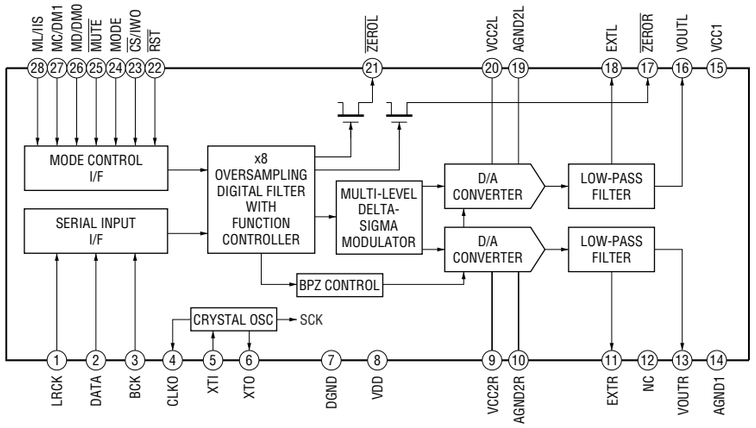
7. IC BLOCK DIAGRAMS

– MB BOARD –

IC001 PLL1700E/2K

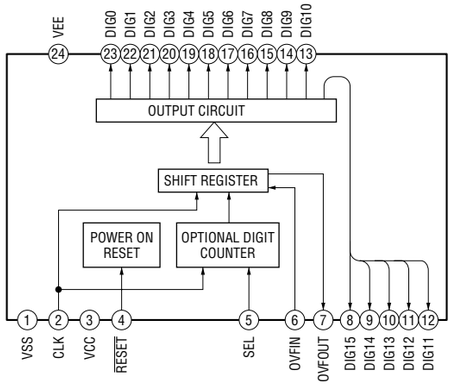


IC902, 905 – 907 CXD8799N-T2



– PANEL BOARD –

IC703 M35501P



8. IC PIN FUNCTION DESCRIPTION

• MB BOARD IC202 MB91101APFV-G-BND (DVD SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	X1/X2	O	Analog filter gain control signal output terminal Not used
2	GAIN1	O	VES gain control signal output terminal “H”: VES Not used
3	GAIN2	O	Rear channel boost control signal output terminal “H”: rear boost Not used
4	VCC	—	Power supply terminal (+3.3V)
5	CPUCK	O	CPU clock output to the gate array (IC601) (25 MHz)
6	XCS5	O	Not used (pull up)
7	XCS4	O	Chip select signal output to the gate array (IC601)
8	XCS3	O	Chip select signal output to the AV decoder (IC401)
9	XCS2	O	Chip select signal output to the AV decoder (IC401)
10	XCS1	O	Chip select signal output to the S-RAM (IC204) and gate array (IC601)
11	XCS0	O	Chip select signal output to the flash memory (IC206)
12	NMIX	I	Not used (fixed at “H”)
13	HSTX	I	Not used (fixed at “H”)
14	RSTX	I	System reset signal input from the reset signal generator (IC207) “L”: reset For several hundreds msec. after the power supply rises, “L” is input, then it changes to “H”
15	GND	—	Ground terminal
16	MD0	I	Mode select signal input terminal Fixed at “H”
17, 18	MD1, MD2	I	Mode select signal input terminal Fixed at “L”
19	XWAIT	I	Wait signal input from the gate array (IC601)
20	TEST1	I	For test terminal Normally fixed at “H”
21	TEST2	I	For test terminal Normally fixed at “L”
22	XRD	O	Read enable signal output to the AV decoder (IC401)
23	XWRH	O	High byte write enable signal output to the flash memory (IC206), AV decoder (IC401) and gate array (IC601)
24	XWRL	O	Low byte write enable signal output to the gate array (IC601)
25 to 39	D0 to D14	I/O	Two-way data bus terminal
40	GND	—	Ground terminal
41	D15	I/O	Two-way data bus terminal
42	A00	O	Address signal output terminal
43	VCC5	—	Power supply terminal (+3.3V)
44 to 64	A01 to A21	O	Address signal output terminal
65	GND	—	Ground terminal
66	CKSEL	O	Sampling mode selection signal output to PLL IC (IC001) “L”: standard, “H”: double
67	DIAGON	I	DIAG mode control signal input terminal “L”: DIAG Fixed at “H”
68	EOP0	I	Not used (fixed at “H”)
69	AVCC	—	Power supply terminal (+3.3V) (for A/D converter)
70	AVRH	I	Reference voltage input (+3.3V) terminal (for A/D converter)
71	AGND	—	Ground terminal (for A/D converter)
72 to 74	AN0 to AN2	I	Setting terminal for the version
75	AN3	I	Setting terminal for the version Fixed at “H”
76	SI0	I	Serial data input from the IF controller (IC1) and EEPROM (IC201)
77	SO0	O	Serial data output to the IF controller (IC1) and EEPROM (IC201)
78	SC0	O	Serial data transfer clock signal output to the IF controller (IC1) and EEPROM (IC201)
79	SI1	I	Serial data input from the audio DSP (IC501), DSD decoder (IC901) and D/A converter (IC902, IC905 to 907)

Pin No.	Pin Name	I/O	Description
80	SO1	O	Serial data output to the audio DSP (IC501), DSD decoder (IC901) and D/A converter (IC902, IC905 to 907)
81	SI2	I	RS-232C data input terminal (for debug)
82	SO2	O	RS-232C data output terminal (for debug)
83	XRST	O	Reset signal output to the gate array (IC601)
84	DACK1	O	Acknowledge signal output to the AV decoder (IC401)
85	DACK0	O	Acknowledge signal output to the AV decoder (IC401)
86	DREQ1	I	DMA request signal input from AV decoder (IC401)
87	DREQ0	I	DMA request signal input from AV decoder (IC401)
88	INT3	I	Interrupt request signal input from the gate array (IC601)
89	SC1	O	Serial data transfer clock signal output to the audio DSP (IC501), DSD decoder (IC901) and D/A converter (IC902, IC905 to 907)
90	GND	—	Ground terminal
91	X1	O	System clock output terminal (12.5MHz)
92	X0	I	System clock input terminal (12.5MHz)
93	VCC5	—	Power supply terminal (+3.3V)
94	INT1	I	Interrupt request signal input from the gate array (IC601)
95	INT0	I	Interrupt request signal input from the AV decoder (IC401)
96	XIFOK	I	Acknowledge signal input from the IF controller (IC1)
97	XIFCS	O	Chip select signal output to the IF controller (IC1)
98	XDACS0	O	Chip select signal output to the D/A converter (IC902)
99	XDACS1	O	Chip select signal output to the D/A converter (IC905)
100	DVD/CD	O	Sampling frequency selection signal output to the PLL IC (IC001) “L”: 48kHz, “H”: 44.1kHz

• **IF BOARD IC1 μPD784215AYGF-514-3BA (IF CONTROLLER)**

Pin No.	Pin Name	I/O	Description
1 to 8	—	O	Not used (open)
9	VCC	—	Power supply terminal (+5V)
10	$\overline{\text{DRVCS}}$	O	Chip select signal output for FL driver Not used (open)
11	$\overline{\text{DRVRST}}$	O	Reset signal output for FL driver "L": reset Not used (open)
12, 13	$\overline{\text{LEDLAT0}}$, $\overline{\text{LEDLAT1}}$	O	LED driver latch pulse output terminal Not used (open)
14	$\overline{\text{SYSPWR}}$	O	DVD system power on/off control signal output to the DVD power supply block "L": power on
15	$\overline{\text{SYSRET}}$	O	Reset signal output to the DVD system controller (IC202) "L": reset
16	AMUTE	O	Audio muting signal output terminal "L": muting on Not used
17	VMUTE	O	Video muting signal output terminal "H": muting on Not used
18	DVD FUNC	O	Function selection signal output terminal "H": DVD Not used (open)
19 to 20	—	O	Not used (open)
21	$\overline{\text{SLFCHK}}$	I	Self check on signal input terminal "L": self check on Normally fixed at "H"
22	TEST/VPP	—	Ground terminal
23, 24	FUNC_A	O	Function selection signal output terminal Not used (open)
25, 26	FUNC_B	O	Function selection signal output terminal Not used (open)
27, 28	FUNC_C	O	Function selection signal output terminal Not used (open)
29	BUSM	O	DVD data over signal output to the system controller (IC401)
30	—	O	Not used (open)
31	FMUTE	O	Function muting signal output terminal "L": muting on Not used (open)
32	ATT	O	Attenuate on signal output terminal "L": attenuate on Not used (open)
33	DVD_AGUP	O	DVD audio gain up signal output "H": gain up Not used (open)
34, 35	—	O	Not used (open)
36	$\overline{\text{I2CBSY}}$	O	Communication data bus busy signal output to the system controller (IC401) "L": busy
37	VDD	—	Power supply terminal (+5V)
38, 39	X2, X1	—	System clock connection terminal (12.5 MHz)
40	VSS	—	Ground terminal
41	XT2	—	System clock connection terminal Not used (open)
42	XT1	—	System clock connection terminal Not used (fixed at "L")
43	$\overline{\text{RESET}}$	I	DVD reset signal input from the system controller (IC401)
44	$\overline{\text{I2CBSY}}$	I	Communication data bus busy signal input from the system controller (IC401) "L": busy
45	$\overline{\text{SYSCS}}$	I	Chip select signal input from the DVD system controller (IC202)
46	$\overline{\text{SYSRQ}}$	O	System I/F request signal output to the gate array (IC601)
47	$\overline{\text{SYSOK}}$	O	Acknowlege signal output to the DVD system controller (IC202)
48	$\overline{\text{ACCUT}}$	I	AC off detection signal input terminal "L": AC off
49, 50	JOG0, JOG1	I	Jog dial pulse input terminal Not used (fixed at "L")
51	AVDD	—	Power supply terminal (+5V) (for A/D conversion)
52	AVREF0	I	Reference voltage (+5V) input terminal (for A/D conversion)
53 to 56	KEY0 to KEY3	I	Key input terminal (A/D input) Not used (fixed at "H")
57 to 59	SELECT0 to SELECT2	I	Mode selection signal input terminal Not used (fixed at "H")
60	PWRCHK	I	DVD system power (+3.3V) supplied check terminal "H": power supplied
61	AVSS	—	Ground terminal (for A/D conversion)

Pin No.	Pin Name	I/O	Description
62, 63	—	O	Not used (open)
64	AVREF0	I	Reference voltage (+5V) input terminal (for A/D conversion)
65	GND	—	Ground terminal
66	DRVDAT	O	Serial data output for FL driver Not used (open)
67	DRVCLK	O	Serial data transfer clock signal output for FL driver Not used (open)
68	SYSIN	I	Serial data input from the DVD system controller (IC202)
69	SYSOUT	O	Serial data output to the DVD system controller (IC202)
70	SYSCLK	I	Serial data transfer clock signal input from the DVD system controller (IC202)
71, 72	—	O	Not used (open)
73	I2CDAT	I/O	Communication data bus with the system controller (IC401) and display controller (IC701)
74	SO0	O	Not used (open)
75	I2CCLK	I/O	Communication data reading clock signal input or transfer clock signal output with the system controller (IC401) and display controller (IC701)
76 to 99	—	O	Not used (open)
100	VSS	—	Ground terminal

• **MAIN BOARD IC401 M30620MCA-A53FP (SYSTEM CONTROLLER)**

Pin No.	Pin Name	I/O	Description
1	CD-DATA	O	Serial data output terminal Not used (open)
2	CD-CLK	O	Serial data transfer clock signal output terminal Not used (open)
3	XLT	O	Serial data latch pulse output terminal Not used (open)
4	AC CUT	I	AC off detection signal input from the reset signal generator (IC501)
5	NC	—	Not used (open)
6	SQ-DATA-IN	I	Sub-code Q data input terminal Not used (fixed at "L")
7	SQ-CLK	O	Sub-code Q data reading clock signal output terminal Not used (fixed at "L")
8	GND	—	Ground terminal
9	CNVSS	—	To flash memory connector
10	XC-IN	I	Sub system clock input terminal (32.768 kHz)
11	XC-OUT	O	Sub system clock output terminal (32.768 kHz)
12	RESET	I	Reset signal input from the system controller (IC501) "L": reset For several hundreds msec. after the power supply rises, "L" is input, then it changes to "H"
13	X-OUT	O	Main system clock output terminal (16 MHz)
14	GND	—	Ground terminal
15	X-IN	I	Main system clock input terminal (16 MHz)
16	VCC	—	Power supply terminal (+5V)
17	NMI	I	Non-maskable interrupt input terminal (fixed at "H" in this set)
18	$\overline{\text{WAKE UP}}$	I	System wake up signal input from the display controller (IC701)
19	SCOR	I	Subcode sync (S0+S1) detection signal input terminal Not used (fixed at "L")
20	RDS-INT	I	Interrupt status input from the tuner pack (AEP and UK models only)
21	RDS-DATA	I	Serial data input from the tuner pack (AEP and UK models only)
22	CD-POWER	O	Power on/off control signal output for the DVD section "H": power on, "L": standby
23	STBY-RELAY	O	Standby on/off control signal output terminal "L": standby (US, Canadian, AEP and UK models only)
24	$\overline{\text{PROTECT}}$	I	Protect on/off signal input terminal "L": protect
25	STK-MUTE	O	Power amplifier on/off selection signal output terminal "H": power amplifier on
26	FRONT-RY	O	Front speakers on/off relay drive signal output terminal "H": front speakers on
27	NC	—	Not used (open)
28	SURROUND RELAY	O	Rear and center speakers on/off relay drive signal output terminal "H": rear and center speakers on
29	IIC-CLK	I/O	Communication data reading clock signal input or transfer clock signal output with the IF controller (IC1) and display controller (IC701)
30	IIC-DATA	I/O	Communication data bus with the IF controller (IC1) and display controller (IC701)
31	TXD1	O	Communication data transmit output to external flash memory
32	SQ-DATA	I	Sub-code Q data input from external flash memory
33	SQ-CLK/OVER DVD	I	DVD data over signal input from the IF controller (IC1)
34	RST1	O	Reset signal output to external flash memory
35	HEAD-PHONE	I	Headphone detection signal input terminal "H": headphone on
36	LINE-MUTE	O	Line muting on/off signal output terminal "L": muting on
37	DVD-RST	O	DVD reset signal output to the IF controller (IC1)
38	TEST	I/O	For test terminal
39	CLOCK-OUT	O	For clock check terminal (open)
40	PL-LAT	O	Serial data latch pulse output to the M62464FP (IC201)
41	PL-CLK/SUR1	O	Serial data transfer clock signal output to the M62464FP (IC201)
42	PL-DATA/SUR2	O	Serial data output to the M62464FP (IC201)

Pin No.	Pin Name	I/O	Description
43	502-LAT	O	Serial data latch pulse output to the M61502FP (IC101)
44	502-DATA	O	Serial data output to the M61502FP (IC101)
45	502-CLK	O	Serial data transfer clock signal output to the M61502FP (IC101)
46	ST-CLK	O	PLL serial data transfer clock signal output to the tuner pack
47	ST-DIN	I	PLL serial data input from the tuner pack
48	ST-DOUT	O	PLL serial data output to the tuner pack
49	ST-CE	O	PLL chip enable signal output to the tuner pack
50	TUNED	I	Tuning detection signal input from the tuner pack "L": tuned
51	STEREO	I	FM stereo detection signal input from the tuner pack "L": stereo
52	ST-MUTE	O	Tuner muting control signal output to the tuner pack "L": muting on
53	AMS-IN	I	Automatic music sensor detection signal input from the HA12226F (IC301)
54	TC-MUTE	O	Line muting on/off selection signal output to the HA12226F (IC301) "H": muting on
55	R/PB/PASS	O	Recording/playback/pass selection signal output to the HA12226F (IC301) "L": recording, center voltage: playback, "H": pass
56	NR-ON/OFF	O	Dolby NR on/off selection signal output to the HA12226F (IC301) "H": Dolby NR on
57	REC-MUTE	O	Recording muting on/off selection signal output to the HA12226F (IC301) "L": muting on
58	BIAS	O	Recording bias on/off selection signal output to the HA12226F (IC301) "H": bias on
59	EQ-H/N	O	Normal/high speed selection signal output to the HA12226F (IC301) "L": normal speed, "H": high speed
60	PB-A/B	O	Deck-A/B selection signal output to the HA12226F (IC301) "L": deck-A, "H": deck-B
61	ALC	O	Automatic limiter control signal output to the HA12226F (IC301) "L": limiter on
62	VCC	—	Power supply terminal (+5V)
63	TC-RELAY	O	Recording/playback select signal output to the REC/PB switch (IC602) "L": playback, "H": recording
64	VSS	—	Ground terminal
65	A-TRIG	O	Deck-A trigger plunger drive signal output terminal "H": trigger plunger on
66	B-TRIG	O	Deck-B trigger plunger drive signal output terminal "H": trigger plunger on
67	CAPM-H/L	O	High/normal speed selection signal output of the capstan motor (M901) "L": high speed, "H": normal speed
68	CAPM-CONT	O	Capstan motor (M901) drive signal output terminal "L": FWD direction, "H": REV direction
69	A-HALF	I	Detection input from the deck-A cassette detect switch (S1003) "L": cassette in, "H": no cassette
70	A-PLAY	I	Detection input from the deck- A play detect switch (S1001) "H": deck-A play
71	B-PLAY	I	Detection input from the deck- B play detect switch (S1002) "H": deck-B play
72	IIC-BUSY	I/O	Communication data bus busy signal input from the IF controller (IC1) "L": busy
73	LOD-POS	O	Loading motor drive signal output terminal Not used (open)
74	LOD-NEG	O	Loading motor drive signal output terminal Not used (open)
75	OUT-SW	I	Loading out detection signal input terminal Not used (fixed at "H")
76	MIDOUT-SW	I	Detection signal in the midst of loading out input terminal Not used (fixed at "H")
77	IN-SW	I	Loading in detection signal input terminal Not used (fixed at "H")
78	MIDIN-SW	I	Detection signal in the midst of loading in input terminal Not used (fixed at "H")
79	CLP-POS	O	Clamp motor drive signal output terminal Not used (open)
80	CLP-NEG	O	Clamp motor drive signal output terminal Not used (open)
81	INIT-SW	I	Changer elevator position detection signal input terminal Not used (fixed at "H")
82	CNT-SW	I	Changer elevator position detection signal input terminal Not used (fixed at "H")
83	ENC2	I	Disc tray address detection signal input terminal Not used (fixed at "H")
84	ENC1	I	Disc tray address detection signal input terminal Not used (fixed at "H")

Pin No.	Pin Name	I/O	Description
85	ENC0	I	Disc tray address detection signal input terminal Not used (fixed at “H”)
86	DISC-SENS	I	Disc in detection signal input terminal Not used (fixed at “H”)
87	PRTC-SW (LID-SW)	I	Disc lid close detection signal input terminal Not used (fixed at “H”)
88	SOFT TEST	O	For software check terminal
89	A-SHUT	I	Shut off detection signal input from the deck-A side reel pulse detector (IC1001)
90	B-SHUT	I	Shut off detection signal input from the deck-B side reel pulse detector (IC1002)
91	B-HALF/ REC A/REC B	I	Deck B cassette in and recording direction detection signal input terminal “L”: side B recording, center voltage: cassette in (stop), “H”: side A recording
92	MODEL-IN	I	Setting terminal for the model type
93	SPEC-IN	I	Setting terminal for the version
94	POWER	O	Power on/off control signal output terminal “L”: standby, “H”: power on
95	SENSE	I	Internal status (SENSE) signal input terminal Not used (open)
96	AVSS	—	Ground terminal (for A/D conversion)
97	HOLD	O	LPC hold signal output terminal Not used (open)
98	VREF	I	Reference voltage (+5V) input terminal
99	AVCC	—	Power supply terminal (+5V) (for A/D conversion)
100	XRST	O	Reset signal output terminal Not used (open)

- **PANEL BOARD IC701 TMP88CS77AF-1A86 (DISPLAY CONTROLLER)**

Pin No.	Pin Name	I/O	Description
1	LED SEL	O	LED selection signal output terminal
2 to 12	LED0 to LED10	O	LED drive signal output terminal
13	STANDBY LED	O	LED drive signal output terminal (I/⏻)
14	TIMER LED	O	LED drive signal output terminal (TIMER SELECT)
15	VOL A	I	Rotary encoder pulse input from the S751 (VOLUME)
16	VOL B	I	Rotary encoder pulse input from the S751 (VOLUME)
17 to 22	BPF1 to BPF6	I	Spectrum analyzer drive signal input from the spectrum analyzer band-pass filter (IC704)
23	L+R	I	Spectrum analyzer drive signal input from the spectrum analyzer band-pass filter (IC704)
24	KEY0	I	Key input terminal (A/D input) (S621 to 626) NEXT, DSP, V-GROOVE, MODE SELECT, TITLE, DVD MENU keys input
25	KEY1	I	Key input terminal (A/D input) (S641 to 647, S649 to 652) TAPE A ◄/►, TAPE B ◄/►, ■, DVD ►II, TUNER/BAND, ►►, ◄◄, ►►I, I◄◄ keys input
26	KEY2	I	Key input terminal (A/D input) (S601 to 609, S611 to 614) I/⏻, DISPLAY, FUNCTION, SELECT, RETURN, PREVIOUS, HI-DUB, REC PAUSE/START, CD SYNC, PRO LOGIC, DVD 5.1CH, GROOVE-EX, GROOVE keys input
27	STICK1	I	Joy stick controller signal (up/down) input from the S701 (PUSH ENTER)
28	STICK2	I	Joy stick controller signal (left/right) input from the S701 (PUSH ENTER)
29	VSS FOR I/O	—	Ground terminal
30	VASS	—	Ground terminal (for A/D conversion)
31	VAREF	I	Reference voltage (+5V) input terminal (for A/D conversion)
32	VDD	—	Power supply terminal (+5V)
33	GRID EXT CLK	O	Grid drive clock signal output to the FL DRIVE (IC703)
34, 35	2G, 1G	O	Grid drive signal output to the fluorescent indicator tube (FL701)
36 to 50	P35 to P49	O	Segment drive signal output to the fluorescent indicator tube (FL701)
51	VDD FOR VFT	—	Power supply terminal (+5V)
52	GRID EXT RESET	O	Reset signal output to the FL DRIVE (IC703)
53 to 86	P34 to P1	O	Segment drive signal output to the fluorescent indicator tube (FL701)
87	VKK	—	Power supply terminal (–40V) (for fluorescent indicator tube drive)
88	VDD FOR CPU	—	Power supply terminal (+5V)
89	XIN	I	System clock input terminal (12.5 MHz)
90	VSS FOR CPU	—	Ground terminal
91	XOUT	O	System clock output terminal (12.5 MHz)
92	RESET	I	System reset signal input from the reset signal generator (IC501) "L": reset For several hundreds msec. after the power supply rises, "L" is input, then it changes to "H"
93	LED11	O	LED drive signal output terminal
94	LED12	O	LED drive signal output terminal Not used (open)
95	TEST	I	For test terminal Normally fixed at "L"
96	WAKE UP	O	System wake up signal output to the system controller (IC401)
97	I2C DATA	I/O	Communication data bus with the IF controller (IC1) and system controller (IC401)
98	I2C CLK	I/O	Communication data reading clock signal input or transfer clock signal output with the IF controller (IC1) and system controller (IC401)
99	LED13	O	LED drive signal output terminal Not used (open)
100	SIRCS	I	Remote control signal input from the remote control receiver (IC702)

REVISION HISTORY

Clicking the version allows you to jump to the revised page.
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Ver.	Date	Description of Revision
1.0	2000.06 2000.08	New Suppliment-1
1.1	2001.03	Changing of parts supply classification of tape mechanism deck (SPM-01007)
1.2	2001.07	Correction of Part No. for Ref. No. 3, 118 (SPM-01023)
1.3	2002.06	Correction of Part No. for IC1 of IF board (SPM-02041)
1.4	2004.09	Addition of “NOTE OF REPLACING THE MB BOARD” to SERVICING NOTES (SPM-04038)